SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 18 WEST FOURTH STREET, CHARLOTTE, N. C. SUBSCRIPTION $2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MARCH 3, 1897.

VOL. 33 CHARLOTTE, N. C., THURSDAY, OCTOBER 6, 1927 NUMBER 6

Eastern North Carolina Meeting

FEATURING a discussion of "local cotton" a very interesting and well attended meeting of the Eastern North Carolina Division of the Southern Textile Association was held September 30th at the Textile Department of N. C. State College in Raleigh.

T. W. Mullen superintendent of the Rosemary Manufacturing Company, Rosemary, N. C., and chairman of this division, presided at the meeting. Mr. Mullen handled the meeting in a very interesting and effective manner and succeeded in bringing out a great deal of worthwhile information during the discussion. He was assisted by Norman B. Hill, secretary of the division.

Departing somewhat from the usual custom of limiting the meetings purely to a discussion of technical questions relating to cotton manufacturing processes, the meeting was devoted almost entirely to a study of the use of cotton grown in the Eastern sections of North Carolina. Chairman Mullen explained that a thorough study of the possibilities of the uses of this cotton, which is grown right at hte doors of the mills in Eastern Carolina and delivered to them direct from the fields should be of great benefit to the mills in question. For this reason it was decided not to issue a formal questionnaire for the meeting, as is the usual custom, but to confine it chiefly to a general consideration of the uses and limits for use of Eastern North Carolina cotton with a staple length of three-quarters to seven-eighths inches.

In the discussion that followed it was evident that the mill men are greatly interested in the possibilities of using more local cotton. It was also brought out that the movement which has been under way in North Carolina for some years to help the cotton planters develop a cotton with much better spinning qualities than it formerly had is making good progress. This work, carried out in co-operation between the farmers, the cotton growing experts of the State Experimental Farms and the Textile School of State College, has resulted in the production of a much more suitable cotton than was formerly grown in the State. The work is still being carried out, and with the continued co-operation of the mills, the farmers, the U. S. Department of Agriculture and the State agencies, it is expected that it will ultimately result in enabling the mills to purchase practically all of their cotton from local sources.

It is apparent that the mills are now much more disposed to use local cotton than they were some years ago. There still exists much prejudice against this cotton in many quarters, but it is being gradually overcome, the meeting showed. Many mills are now using large quantities of this cotton and obtaining excellent results in spinning it, as well as finding its use an economical advantage.

Chairman Mullen stated that as "a prophet is not without honor save in his own country," it is also true that local cotton is often "not without value save in its own communitq," and that many mills in other sections have found they could use local cotton to good advantage and were using it more largely than some of the mills in the sections where it is grown.

T. W. Mullen.

In connection with the movement to improve the cotton staple by inducing the farmer to plant the better varieties and to use the necessary precautions in seed selection and ginning, speakers at the meeting showed that while the Eastern Carolina farmers have succeeded in producing better cotton, they have not been able to "cash in" on their efforts and that the whole success of the movement is going to depend upon enabling the cotton farmer to realize a better price for the better staple that he produces at an increased cost to himself.

So far the mill owners in Eastern North Carolina have not as a whole given much aid in the movement to better the cotton staple. In a few instances, however, where individual mills have taken steps to insure a good supply of local cotton, they have found it a very profitable arrangement, it was shown at the meeting. The superintendents and overseers are greatly interested in the supply of local cotton and several of them urged at the meeting that members of the Association take up this question with the mill executives.

Dr. Brooks Speaks.

After the meeting was called to order by Chairman Mullen, Dean Thomas Nelson introduced Dr. C. E. Brooks, president of State College, who made a brief talk. Dr. Brooks stressed the importance of the work that the Textile School is doing through co-operation with the mills, cotton planters and cotton growing experts toward the development of better fibres. The college hopes to be the means through which the work can be successfully carried out, Dr. Brooks explained. He also told something of the aims and purposes of the Textile School and urged that the mill men take advantage of the help that can be given through the school's facilities.

N. B. Hill.

Following Dr. Brooks' talk, J. M. Gregg, secretary of the Association, spoke for a few minutes on the progress that the Association is making in all phases of its work. He pointed out that two new divisions of the Association, the Dyers, Bleachers and Finishers Section and the Alabama-Mississippi Section were to be organized this week. Mr. Gregg also called attention to the semi-annual meeting of the Association, to be held in Birmingham, Ala., on October 28 and 29.

L. R. Gilbert, president of the Association, spoke for a few moments on the activities of the organization.

In his remarks preceding the general discussion, Chairman Mullen showed the advantages that a mill may gain when it is able to use cotton grown in its immediate section. In Eastern North Carolina, the mills must either learn to use the cotton that is now being grown or help educate the farmers to grow better cotton. It is very important, he said, that the mills do everything to encourage the growing of an improved type of cotton. At his own mill, Mr. Mullen said that they use local cotton for spinning their filling yarns and get very satisfactory results. They use cotton from further South for their warp yarns.

Mr. Mullen then asked if any of the men present were having difficulty in handling local cotton through the opening to carding processes and if any one had found any special means of advantage in these processes.

M. R. Vick, overseer of carding at the Rosemary Manufacturing Company ,asked that the discussion on Mr. Mullen's question be delayed until there was a further consideration of some of the other questions relating to local cotton. He asked why the same cotton land frequently produced cotton of two staple lengths. He stated that he had found that the cotton grown on "red land" was usually superior to that grown in the more sandy soil.

Mr. Mullen stated that he had found the cotton from the red land was better.

J. W. Cates, superintendent of the Edenton Cotton Mills, wanted to know if there was a greater variation in the staple and quality of Eastern Carolina cotton and that from other sections.

Considerable difference of opinion was expressed on this point, but it seemed the general opinion that the cotton now being grown in Eastern Carolina is as uniform as that from other States and in many cases is more uniform.

C. M. Black, superintendent of the Borden Manufacturing Company, Goldsboro, stated that much of the irregularity in the staple was due to careless seed selection by the planters who fail to plant from a uniform seed supply. He said, however, that Eastern Carolina cotton is much better than is usually believed.

Secretary N. B. Hill said that in most instances, the mixture of va-

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Weaving Rayon Fabrics

THE construction of any cloth is dependent upon three primary elements: warp, filling, and weave required. A variance of any one of these determining factors will affect the result very materially, and this is the reason why every textile concern must have its textile analyst, why textile schools teach cloth analysis as a "major" subject, and why many of the buyers and large stores now employ their own cloth expert, says R. C. Pillsbury, superintendent of weaving, Cheney Bros. Silk Company, in the Rayon Journal.

We had allowed ourselves to get so in the habit of thinking in terms of silk, that it was only natural that we should assume that whatever cloths could be made in silk, could also be made in rayon. We might have allowed for a few minor changes, but in general it seemed reasonable enough to substitute rayon for silk. Consequently, many cloths were made which, theoretically, ought to have been satisfactory, but which were actually a sad mistake. We found we could not put twist into a rayon thread and get a good crepe de chine which would have a semblance to silk. We could not put a large number of threads to the inch and weave it successfully into a satin. We could not make a radium by simply using a rayon filling instead of silk, etc. But these trials were not wasted effort. It showed us clearly and concisely and quickly that we had a new textile fibre with which to work, and consequently our energies were increased in order to find the best solutions.

New Cloths for Rayon.

It therefore, followed that entirely new cloths were developed for the use of this yarn. At first coarse or heavy satins, using 150 denier or even 300 denier in the warp with not over one hundred ends per inch, were made, with considerable success. The trade, however, desired something more approaching the results obtained by the use of silk, or at least competitive wtih it, so finer and more compact constructions were used. This in turn created the necessity for finer deniers in rayon, so that whereas, when rayon was originally manufactured, the standard sizes were 150 and 300 denier, we now have no trouble whatsoever in obtaining 75 or 100 denier. In fact if any trouble does exist in the present day, it is not a question of the technical manufacture of the finer sizes, but rather one of deliveries. With the advent of these finer deniers we are naturally permitted the use of more picks and ends per inch, and a wider range of weaves is available for use.

Among the cloths being successfully manufactured today, using rayon are, dress satins, heavy repps for coatings, necktie cloths, piece dyed decorative figured goods, and yarn dyed upholsteries. Also many cloths such as twills, and repps are being used for cravat cloths. Each one of the different types presents a different problem in weaving.

Satins should be woven with as light a weight on the warp beam as is possible to obtain, and yet run the warp. Too much weight will stretch some of the threads more than others, and will result in warp streaks which will show in the finished satin cloth. A rubber take up roll is preferable, inasmuch as there is a danger of a sand-roll chafing the cloth. Satins should no tbe constructed with too many ends per inch. If 150 denier is used for warp, we can not secure good production results if more than 150 ends per inch are used. If 100 or 75 denier is used, good results can be obtained as high as 200 ends per inch. There is, of course, a possibility of this condition being alleviated by duplex or off-set heddles. This will allow for a greater number of ends per inch, but manufacturers have not, as yet, produced a successful selling rayon satin with anywhere near the number of binding ends per inch, used on even the poorer qualities of silk satins. This may come in time, if rayon is ever manufactured in deniers comparable to the elementary silk sizes.

Repps.

Repps produce a different problem. They are made with heavy fillings, worsted as a rule, and consequently they require very few picks per inch. Hence, they are quick weaving and produce a correspondingly greater production per loom, per day. This means that the warp must be watched by the weaver with greater care than on a satin, because a defect on a rayon thread, such as a knot, slub, etc., will cause the adjoining threads to cross in the shed or in back of the harnesses and cause a "catch." This will in turn, of course, pull the ends and the effect is plainly discernible in the cloth, and cannot be remedied satisfactorily once it is allowed to get in. Repp warps should be woven on a long stretch, and the warp beam should be set at the extreme back position of the beam stands, thus permitting the warp a greater latitude for opening up and minimizing crossed threads.

Another defect noticeable in weaving repps from rayon is a shiery appearance at the fell of the cloth which most often occurs after the warp has been allowed to stand idle for even a few minutes. A corrective measure for this trouble is to always level the harness immediately, as soon as the warp stops; thus not allowing the rayon warp threads to be stretched to an excessive amount by permitting them to remain in an open shed. When the loom is stopped at noon and night, the reed should be brought tight against the last pick of the cloth to hold the warp threads firmly and not allow for an elongation at one point any more than at another. This is true on rayon warps whether repps, satins or any other construction.

Yarn Dyed Taffetas.

Yarn dyed taffetas are a particularly difficult proposition to handle. We have the added troubles of dyeing with which to contend, and usually when the rayon is ready for weaving after having first been dyed, something has happened to it to cause trouble. Cockled taffetas are hard to overcome in weaving, particularly because of the deliquescent properties of rayon. This is, of course, an extremely difficult situation to overcome. Properly controlled humidity and temperature are very essential. Great care should be taken in this respect. The humidity readings on the hygrometers should be carefully checked every few looms to see that there is no undue fluctuation and the humidity should be kept as low as possible. This is no easy task in the summer months, particularly during July and August when the natural humidity sometimes runs as high as seventy-five.

It is readily discernible that in using rayon for filling, a slight deviation in humidity from the standard, will elongate the thread and after the excessive moisture dries out, this thread will cockle and produce a seer-sucker or plisse effect in the cloth. Tension in the shuttle is, right here, a more important factor than at any other stage of rayon weaving, and weavers and loom fixers ought to use extra vigilance when this condition is existing. The tendency at this time is to put too much tension on the quill. This often results in the remedy being worse than the disease, because a slight variation in humidity will throw the entire shuttle adjustment out of balance, and uneven tension will result. The best care is the proper humidification control of moisture in the room, followed by constant watch to see that it is kept standard.

"Tight" Edges.

"Tight" edges are very liable to occur where rayon warps are used. Probably not enough attention is given to edges on either rayon or silk goods. Inasmuch as they do not go into the actual manufacture of a garment, they are often disregarded as a minor item, and this is theoretically true. Nevertheless, they enhance the value of the product and a buyer of cloths is often attracted by a good edge, and because of this item, cloth can be made more desirable. Aside from appearance, however, edges of course serve the primary purpose of adding strength to the cloth. They are of infinite value in the finishing operations and if an edge is "tight" or sleazy, or has other defects in it, the chances of producing perfect finished cloth are lessened. Thus weavers ought to be taught to employ the proper weight on edge goods and the spools should be inspected when each cut of cloth is taken from the loom, to see that they are weaving properly. The use of rayon organzine in edges is admirably adapted to most rayon goods and will pay good dividends for the small amount of extra money invested in throwing the rayon.

Drop wires may be used on rayon the same as on silk, only if the rayon warp is left standing for any great length of time, they should be raised from the warp ends to prevent chafing or cutting.

Gray Goods Trade in Philippines

The demand for gray sheetings in the Philippines continues good on account of advancing prices. Japanese arrivals lighter and stocks low. The demand for lower constructions of bleached sheetings is much better, but the competition continues to be keen and sales are being made below replacement value and the stocks are lower. Stock price for bleached sheeting, 64 by 60, 36-inch, 5.35, to date is $4.10 for 36-yard piece, indent price to date is $4.40. Demand for gray drills continues good and stocks are lower. Bleached drills continue seasonally slow. Colored yarn drills are fairly active, stocks being low. There is a very good demand for denims, arrivals sold at good profits and stocks are low, but forward orders are small as buyers are resisting a price advance.

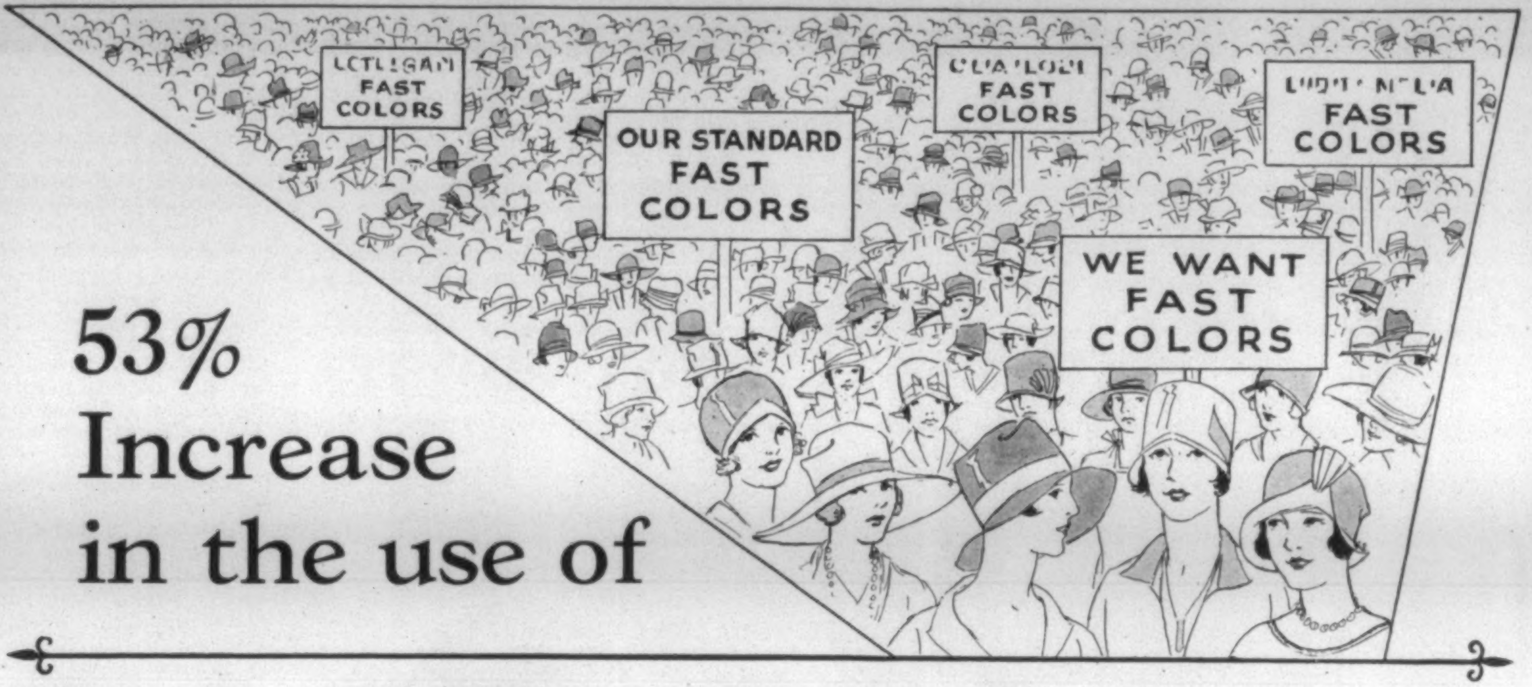
Local prices for narrow prints are below replacement status because of the heavy arrival of goods purchased at old prices. The turnover is good, bu tprofits are naturally small. Percales have improved and stocks are small. Indent sales are slower as the trade is not willing to pay new prices. Demand for gingham was good until prices advanced; stocks low. There is a fair demand for khakis, stocks are lower and prices advanced.

Greenville Mill Dividends

Greenville, S. C.—Seven Greenville county mills are expected to pay out more than $100,0000 chiefly on preferred stock issues, on or about October 1, according to figures compiled by local stock brokers. The earnings include several quarterly payments on common stock. These mills are: Dunean Cotton Mills, $1,000,000 preferred, $17,000; Judson Mills, $920,000 preferred, $16,100; Judson Mill, $1,000,000 "B" preferred, $17,500; Mills Mills, $529,000 preferred, $18,529, $300,000 preferred, $5,250; Victor-Monaghan Company, $872,000 preferred, $15,260, and Southern Worsted Mills, $600,000 preferred, $10,500.

Tire Manufacture From Using Low Grade Cotton.

Little Rock, Ark.—W. H. Ellis, a Little Rock plumber, has invented a system for the use of low grade cotton in the manufacture of automobile tires. The casing and a tube together contain about one-third the usual amount of rubber and weighs one-third less than the average balloon tire. He claims that it will stand wear much better and is more proof against punctures nad blowouts.



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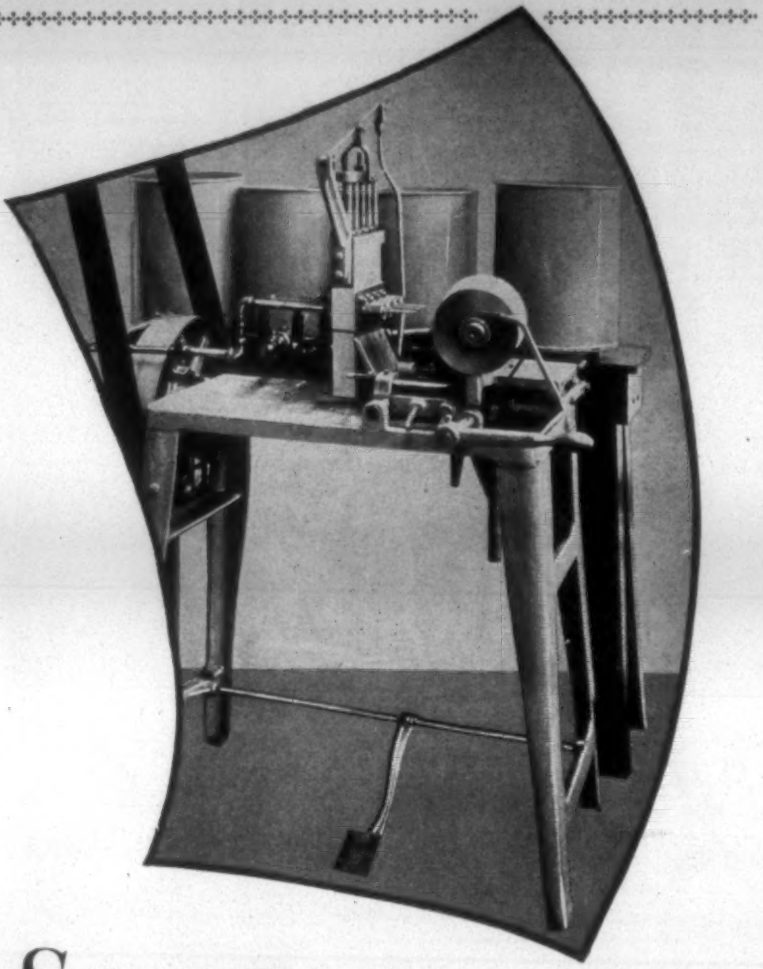

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Eastern Carolina Meeting

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rious seeds was due to the fact that it was not kept separated at the gins. He thought that most mixed staple originated from mixing seeds during ginning

Chairman Mullen told of one mill that has been buying cotton from a group of farmers who used unusual care in seed selection and who operated their own gins. The mill had found that the cotton thus obtained proved far superior to the ordinary cotton.

J. M. Gregg reported that one mill in Eastern North Carolina had arranged to have several farmers plant a cotton from seeds selected by the mill and were getting excellent results in spinning and were saving money in their cotton buying.

Mills and Farmers Must Co-operate.

Dean Thomas Nelson, of the Textile School, said that it was absolutely necessary that the farmers co-operate with the mills in selecting their seeds. They must use only the type of seed that will produce the cotton the mill needs, he said, and the mills had been found willing to pay a premium for the better cotton. The salvation of the cotton farmers in getting more money for their crop and of the Eastern Carolina mills in reducing cotton costs lies in close co-operation between the two, Dean Nelson pointed out.

L. R. Gilbert.

W. G. Reynolds, of Selma, agreed with Mr. Black that the local cotton was better than it was given credit for. He has found in several instances that Eastern North Carolina has been shipped out of State and then reshipped as North Georgia cotton. He stated that he wanted no more North Georgia cotton. He has been using local cotton, one-inch staple, for spinning 26s to 40s yarn, and gets good results. His mill had been paying a premium of 100 points on New York for the particular cotton he was using.

Mr. Mullen pointed out the necessity of the mills paying a premium for good local cotton, thereby encouraging the farmer to grow it. The premium can be paid and the cotton secured at less cost than when freight is paid from distant States, he said.

Mr. Black stated that it was also necessary to educate the cotton merchants to the requirements of the mills.

Mr. Vick asked that the members of the Association urge the mill executives to co-operate with the farmers and ginners in producing better cotton and in seeing that the smaller farmers had an opportunity to get the better quality seeds. Few of the smaller farmers have any choice as to what seed they plant, he said.

At the suggestion of Dean Nelson, Dr. R. E. Winters, who has charge of the work that North Carolina State College is doing to help the farmers grow the better qualities of cotton addressed the meeting. Dr. Winters gave a very interesting account of the work that is being done through co-operation of the State and government agricultural departments, the textile schools and the mills. His work is devoted to the production of improved staples and involves spinning tests to check the results.

Work to Improve Staple.

The work began 17 years ago, Dr. Winters stated, a definite plan for working with the farmers and taking in consideration the needs of the mills having been undertaken then. At that time, a great deal of Eastern North Carolina cotton was being shipped abroad and the mills in the State were only using a limited amount of it. Those in charge of the cotton improvement work secured all information possible from the mills regarding the type of cotton the mills needed. They were particular to find what varieties gave the best results in the spinning. Most mills at that time were strongly prejudiced against using local cotton. However, Dr. Winters said, during the last several years the steady improvement in the character of Eastern North Carolina has overcome much of this prejudice. The improvement in the staple has been made with the idea of meeting the demands of the mills and to a considerable extent this demand has been met.

C. M. Black.

Recent tests of the spinning qualities of Eastern Carolina cotton and comparisons with cotton from Texas have put the local cotton in a very favorable light, Dr. Winters stated. These tests showed that 2 per cent less waste was made in spinning cotton from Eastern Carolina than from Texas and that the local cotton gave a somewhat higher breaking strength.

The difference in the length of staple of cotton from the same farms is due to difference in moisture conditions during the plant's growth, Dr. Winters explained. The cotton at the bottom of the plant is

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What the Cotton Textile Institute Is and How It Operates

ON October 19, 1927, the Cotton-Textile Institute, Inc., will hold in New York City its annual meeting covering the first year of activity on behalf of the cotton textile industry of the United States. In this year the Institute has accomplished three outstanding results, says a statement from its offices.

1. It has effected for the first time in the history of textile manufacturing in this country an authoritative organization representing the entire industry.

2. It has created a new spirit of co-operative effort among individual textile manufacturers under Walker D. Hines as the recognized leader and spokesman of the industry. Mr. Hines is a former director general of railroads, and in 1920 and 1921 was arbitrator of river shipping in Europe under the peace treaties following the World War.

3. It has put into operation three important and practical measures of developing the growth of the industry and thus promoting the welfare of the cotton grower and the manufacturer and consumer of cotton goods.

The Cotton-Textile Institute represents an industry which is one of the oldest and largest in the United States. This industry has an aggregate capitalization of $2,000,000,000 and an annual output valued at a similar amount which is greater than the output of all other textiles combined; these products are probably more diversified in their daily uses than are the products of any other commodity; and more persons are employed in cotton mills than in any other primary manufacturing industry in this country.

The Cotton-Textile Institute was chartered as a membership corporation under the laws of the State of New York "to promote the progress and development of the cotton industry" in the United States. The founders of the Institute have chosen not to impose any theories or conclusions upon this highly mechanized indusrty, but rather by analysis and study to provide constructive information and recommendations which will enable each member to conduct his business with a more intelligent understanding of his industry and the markets for his products.

The Cotton-Textile Institute was formed in response to the wide recognition by leaders within the industry that new and changing economic conditions in this country during recent years required more than an individual or limited group point of view. The "Institute Idea" which had been tried successfully in other large industries presented a strong attraction to those textile manufacturers who wished to put the business of making and marketing cotton cloth on a sound and more effective basis.

Sponsors of the Institute discussed their project more than two years ago ,but it did not materialize until last year. During the late spring and early summer of 1926 representatives of the principal cotton manufacturing groups in Southern and New England States held a series of conferences which cleared the way for the formation of the Institute on July 21, 1926, with the support of manufacturers representing upwards of 18,000,000 spindles.

Since that time the membership has increased so that it represents approximately 450 mills with more than 21 540,000 spindles. This is equivalent to more than two-thirds of the active spindles of the country, an inclusiveness whcih is significant from the fact that this organization for the first time has brought together almost all the large producers of cotton goods in the United States.

Sponsors of the Institute throughout the period of organization found important Government representatives at all times interested in the efforts of the industry to take these steps toward self-improvement. The present position of the Institute is unique, therefore, in that the industry for the first time has been placed in a position to co-ordinate its work with the measure which the Department of Commerce and Department of Agriculture have undertaken for the general advancement of business and agriculture.

In seeking to "promote the progress and development of the cotton industry, "the Cotton-Textile Institute is authorized to conduct or assist trade researches or experiments dealing with the manufacture and marketing of cotton products; to issue publications for the public and the trade; to collect statistical and trade information concerning domestic and foreign markets the development of new uses and the extension of existing uses ,credits, freight rates and improved methods of manufacture or distribution.

The Institute also is authorized to assist or co-operate with other organizations or governmental bodies for the advancement of the cotton industry and prepare the industry for effective operation in national emergencies. It is not organized for profit and it has specifically barred legislative and political questions from its activities.

Mr. Hines, as president, is the administrative head of the activities of the Institute. Stuart W. Cramer, of North Carolina, and Robert Amory, of Massachusetts, are vice-presidents representing Southern and New England sections of the industry, respectively. Garrish H. Milliken, of New York, is treasurer. The secretary is George A. Sloan, formerly associated with the Copper and Brass Research Association in a similar capacity. From a widely representative board of directors. numbering 75, sixteen members with Mr. Hines, Mr. Cramer and Mr. Amory comprise the executive committee which supervises the work of the Institute.

At present, contacts with other important elements of the industry which are concerned with the supply of raw material and the distribution of part of the finished output are maintained through committees or selected representatives. Activities within the membership of the Institute are conducted through three principal channels—a section of new uses; statistics; and cost accounting. These in turn are developed through group subdivisions, each of which comprises mills engaged in manufacturing basically similar products.

The Section of New Uses has undertaken to extend existing uses of cotton and develop new uses. Its first objective is to reveal to the industry the immediate outlets where the use of cotton and cotton goods may be readily extended. It is co-operating with governmental agencies in a comprehensive census of the uses of cotton which is designed to develop important data concerning the grade and staple of cotton grown and required for use in this country as well as organized information concerning the ultimate uses of cotton textiles. Through this section the Institute also represents the industry in the work in simplified practice and standardization which has been started by the Department of Commerce in Washington. Wherever possible it seeks to be the means of promoting research in problems which the industry may have in common with large consumers and distributors of cotton goods at home and abroad.

To present a more comprehensive statistical view of the industry the Institute's statistician is engaged in assembling and distributing all available data concerning the production stocks and unfilled orders in cotton goods. With such additional reports from mills and other sources not now available to existing statistical agencies within the industry it is planned to furnish for the benefit of members and the industry generally more adequate information concerning the production, distribution and consumption of cotton textiles. The value of this work will increase as this information becomes available over a period of years.

In addition to a study of uses and the collection of statistics the Institute has undertaken to develop more adequate and accurate information concerning costs and cost accounting methods in the hope that improved practices of cost finding may be applied in the industry. It is recognized that while this subject has engaged the attention of a number of mills for some time there is a great need for the adoption of a proper system by many other mills manufacturing cotton textiles. Inadequacy of general knowledge and use of sound cost figures has been a major difficulty in the industry.

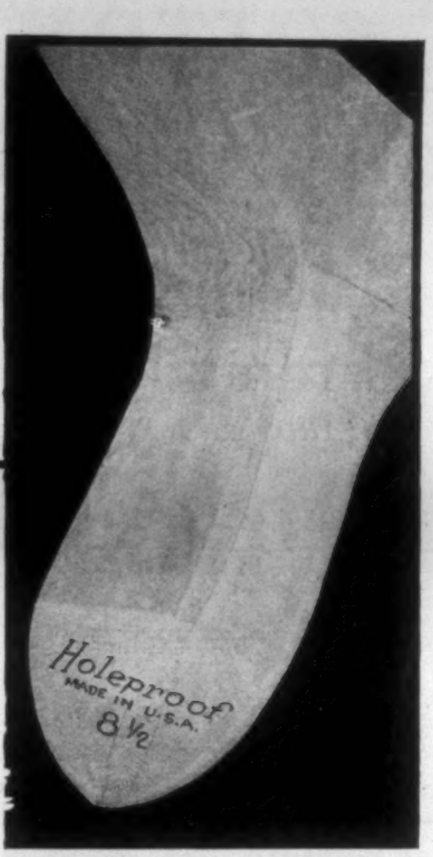
Because the industry is so inherently complex and its products so diversified, the Institute works through group subdivisions of its members. These are organized according to type of products. For example, a large proportion of the manufacturers of sheets and pillow cases are represented in the Wide Sheetings Group. Manufacturers of narrow sheetings which are used in other industries—for bagging, oilcloth, artificial leather, etc.—are included in the Narrow Sheetings Group. The manufacturers of printed cotton fabrics used for apparel and for household purposes comprise the Print Cloth Group. Manufacturers of coarse cloth known as osnaburg which is largely used for heavy bagging and for such domestic purposes as towels and upholstery material are represented in the Osnaburg Group. As rapidly as possible other groups are to be formed for other standard types of cloth. Each group has contact members through whom the Institute's work in new uses, statistics, and cost accounting is co-ordinated.

One of the important achievements of the Institute has been with the spinners of carded yarn. This group includes those who make yarn for use in their own weaving mills as well as those who spin wholly or in part for sale to other manufacturers of cloth. Among these members and the distributors of carded yarn there has been promulgated a code of practice, setting forth a summary of important points which have been agreed upon as sound business principles.

Through the Institute, the industry has been able to make an important contact with representatives of the growers and distributors of raw cotton. It was realized that sound improvement in manufacturing conditions necessitated a clear understanding of the factors governing the cultivation and marketing of the commodity upon which the industry is based. To meet this need a special committee has been appointed to represent the industry in discussions of matters of common interest with the representatives of growers and shippers of cotton. This cotton committee is authorized to confer as it has recently with a committee representing the American Cotton Growers' Exchange and make for the Institute investigations and recommendations concerning matters of mutual interest to manufacturers and growers or distributors of cotton,

The Institute also is working with other organizations for a better understanding of problems in the distribution of cotton textiles. Important changes in merchandising as reflected in hand-to-mouth buying, new channels of distribution, and improved standards of living present a situation wherein manufacturers and merchants and other links in the chain of distribution have problems in common. Representatives of manufacturing and distributing groups have already conferred and arranged for a thorough exchange of views concerning the distribution of cotton textiles.

It is a fact of profound significance in the industrial life of the country that such an important body of manufacturers as those representing the cotton textile industry in the Cotton-Textile Institute have adopted these measures for their advancement. The effort bespeaks a new attitude of co-operation on the part of the industry in meeting new economic conditions, believing that the sum of individual advancement is bound to promote the progress of their entire industry, and thus be a general benefit.



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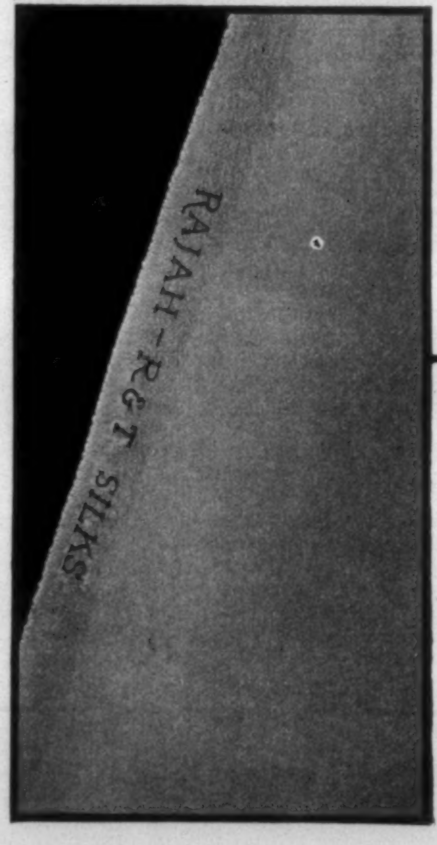

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COTTON MACHINERY

Duplex Carding Device

(HARDMAN'S PATENT)

Can Be Applied to Any Make of Revolving Flat Card

The object of this appliance is to remove motes, leaf, short fibres and foreign substances from the cotton before it reaches the Cylinder and Flat Clothing.

The removal of these foreign substances from the cotton before it reaches the Cylinder and Flats increases the life of the Card Clothing.

The Cylinder, Doffer and Flat strips taken from a Card which has this Duplex Device applied can be put back into the regular mixing.

This Device has no high speed parts to wear, it is simple in construction and operation, and consequently requires very little attention.

Write for special Bulletin.

Over 5000 of these Devices are in Successful Operation

Sole Licensees

H & B

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Southern Office

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Atlanta, Ga.

Eastern Carolina Meeting

(Continued from Page 10)

frequently an eighth of an inch longer, because it receives more moisture. In very dry seasons, farmers must keep the cotton separated during picking to assure uniform staple lengths. Moisture is always the determining factor in staple lengths, he said.

It is important that the mills indicate what they want in cotton qualities, Dr. Winters stated, so that the staple may be bred with the idea of meeting mill requirements and it is equally important that the cotton merchants have the same knowledge. The farmers usually sell to merchants and the latter can help the situation immensely if they are familiar with mill requirements.

The strength of the cotton fibres depends upon the length of the staple, Dr. Winters stated, in discussing this phase of cotton qualities. When cotton is bred for length of staple, it loses 5 per cent in strength for every sixteenth of an inch added to the length of the staple.

Dr. Winters brought up the subject of "drag" in cotton fibres, the term "drag" being commonly used to denote the friction between the fibres as they are separated are drawn. He stated that if the mills prefer a cotton with good "drag" it can be bred to have that quality.

In concluding his remarks, Dr. Winters emphasized the fact that the farmers will continue to improve their staple only as they receive better prices for the improved product. The key to the whole situation is a co-operation between planters and users that will allow the mills to pay a premium for good local cotton and at the same time be able to get their cotton on the proper price basis.

Dr. Winters was asked by a member to state the difference between Mexican Big Boll and Cleveland Big Boll cotton and he explained the two types. Mexican is usually stronger, he said. Sixty per cent of the cotton now grown in North Carolina is the Cleveland Big Boll variety.

A member also asked Dr. Winters, to explain the type of cotton known as "half-and-half." This variety was developed in Georgia, he stated. It is a short staple cotton and was developed primarily to give a large outturn at the gin, and any cotton grown with that idea in mind, of big gin production, increases in strength. Half-and-half is cotton with a small boll, small seed and short fibres.

Chairman Mullen asked if cotton seed, where the same variety is used each year, did not deteriorate rapidly. Dr. Winters replied that cotton planters who each year use one bushel of fresh seed to every 20 acres can maintain a seed that will give uniform results. The seed must be kept separated at the gins and must be adapted to the local conditions, Dr. Winters stated.

In discussing cotton grown in different localities in Eastern Carolina, M. R. Vick stated that spinning tests showed very little difference in the qualities grown in Wake and Edgecombe counties, and that the main difference was in staple length. Mr. Vick asserted that Wake county cotton was the best local cotton he had ever used.

Chairman Mullen stated he believed that the cotton that was uniform and of ⅞ to 15-16 inch staple would be suitable for the yarn being spun in most of the mills in Eastern North Carolina. There was general agreement that a uniform staple of that length would fill the needs of these mills.

C. M. Black stated that he was spinning both hard and soft yarns from local cotton and getting good results. He would not spin finer than 20s yarns from ⅞-inch cotton. He stated that he understood that foreign mills spun better yarns from lower grades of cotton than American mills, but thought it was due to the much lower production abroad.

Mr. Vick said that a low spinning speed would make better yarns from short cotton.

Chairman Mullen asked regarding the waste in the processes through carding, wanting a comparison between the waste from local and other cottons.

The opinion of the meeting seemed to be that there was little difference in handling local cotton in the processes up to and including carding.

Mr. Vick said that he was using local cotton for filling yarn and "what must be seedded cotton cotton" for warp, the length being about the same. He said that when drawn to the same length, the lap for the filling was a pound heavier than for the warp. The lap came from the card and drawing the same weight, but as it comes from the speeder there was about 14 per cent difference in the weight. The waste from the local cotton was less, he said, although the local cotton was lighter on the speeders. He asked for information on this point.

Mr. Gurley reported a test he had made on five bales of Eastern Carolina and five bales of Southern cotton. There was seven pounds more motes through the vertical opener in the Southern than in the local cotton. Through the intermediates to finishers there was 40 per cent more waste in the Southern cotton. Carding showed 15 per cent more waste in the Southern cotton. The five samples of each yarn, taken from both cottons, showed that the yarn from local cotton was evidently better., The same weight lap was used in the test.

Mr. Gurley was of the opinion that local cotton had "gotten a bad name" that it does not deserve and tha tmills can use it very much more successfull if they will lay aside their prejudice against it.

Dr. Winters asked that in comparison two local cottons, what effect the difference in drag made. "Does cotton with good drag draw as well?" he asked.

Mr. Vick stated that on a test on two cards and two drawing frames, there was no trouble with the slubbing drawing lighter where one cotton had more drag than another.

Mr. Reynolds stated that ⅞ cotton with good drag draws evenly.

Geo. F. Brietz, Selma, N. C., stated that he was running Southern cot-

(Continued on Page 38)

New Progressive Developments In U S Automatics

The new
U S "E" Eye

The "E" eye for Draper, Hopedale, and Stafford bobbin-changing automatic looms. The "F" eye for Crompton & Knowles worsted, cotton, or silk automatic looms.

These two new eyes round out a set of automatic shuttle eyes that enable us to take care of your requirements for any and all kinds of filling.

Satisfied users of our "A" and "D" eyes will find that in the new "E" and "F" eyes, emphasis has been placed on all the good points and principles of easy and positive threading that have made U S automatics so popular.

Mills not now using U S automatics but interested in progressive development should try these latest eyes. You will find that U S automatics will thread any and all kinds of filling easier and better than any eyes you have ever tried before. You will have a hard time tracing mis-threads, mis-picks, and cut filling to U S automatics.

Tension can be controlled in U S automatic eyes as in no others. When increased tension is desired, only in in U S eyes will you find the double tension felts.

Ask about the new Davol Tension for Crepe filling.

The Complete Line of U S Automatics

"A", "B", "D", "E", and "F" Eyes, U S Wool Eye for Crompton & Knowles Woolen Automatic Looms, U S Right-Hand and Opposite Wind Eyes.

Absolutely tight tips, and the best grips and stock obtainable are features of all U S automatics.

Our plain loom common shuttles for wool, worsted, duck, silk, and rayon are of the same U S uniform quality. Whatever your needs, there is a U S shuttle that will give you satisfaction.

Shuttles should never be bought on price alone, yet U S prices are attractive.

Let us quote on your requirements

U S Bobbin & Shuttle Co.

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BUILDERS OF BETTER BOBBINS, SPOOLS, AND SHUTTLES

U S salesmen are specialists on bobbins, spools, and shuttles. Order direct from U S for real helpful and understanding service

Safeguards For Textile Machinery

Address of H. C. Washburn, Fisk Rubber Co., New Bedford, Mass., before Textile Section of National Safety Council. Chicago.

IN this paper no mention will be made of such general guarding as can be found in plants making sincere efforts to reduce its accident experience. In safety week, as in all lines of endeavor, it is little things that count, and I will mention some of the simple developments in new safeguards which have recently been devised and which have given such favorable results in our plants.

Although many of the newer types of textile machinery are equipped with shipper locks when delivered from the manufacturers there still remains grave danger of accidents from machines now in use and without such attachments. Regardless of all rules and regulations governing the cleaning of machines while they are in motion, employes are prone to take a chance of injury· especially if the size of their pay envelope is rated on a piece work basis. Such work should never be attempted until the machine has entirely stopped. However, after this precaution has been taken an occasional accident will occur due to a belt creeping from the loose to the tight pulley or in consequence of another employe starting the machine without first ascertaining the reason for its remaining idle. Such danger is particularly present on speeders and slubbers. On these frames the shipper rod usually extends across the entire length of the machine. Interlocking devices are not feasible from a production standpoint, as it would become necessary for an employe who is piecing up ends at the further end of the frame to return to the head in order to detach the locking device.

One of our second hands devised a simple latch or locking device which ecffctually prevents the possibility of an accident arising from the causes previously mentioned Made of 1-8 inch angle iron and two inches in length, with a square hole at each end, one end is loosely attached to the set screw nearest the shipper rod on the creel stand at the head end of the frame. When the machine is in motion the latch hangs suspended from this set screw. Twisted at the center, the halves are at right angles, and after the machine has been stopped the operator slips the free end over the head of a set screw on the shipper rod. Slipping of the drive belt is thus prevented and repairs or cleaning may be done in safety. As an additional precaution the device is painted red and a letter "S" in red is painted on the creel stand rod immediately above it.

On another type of speeder the attachment is constructed of heavier material and in two parts. One part is securely bolted to the curved top surface of the frame head just above the shipper rod guide. The other part is fastened to the first by a bolt on which it may be turned. When the speeder is running this second part rests on the frame head surface. In the locked position it is thrown over and down, the end resting in the opening where the shipper passes through the guide.

On a third type of speeder having a shipper rod at the rear and penetrating the frame head, the attachment is similar to the preceding, but fastened to the frame head below the shiper rod. To lock this frame the latch is thrown up and over, with the end resting on the rod between the head and shipper rod collar.

This locking device, differing only in its adaptability to the machine on which it is to be used, has been attached to slubbers, drawing frames and combers. On slubebrs one-half is bolted to the back surface of the frame head. The other half has a slot in one edge which slips over a set screw in the shipper rod collar effectually preventing moving of the rod.

For drawing frames the device is much like the first-mentioned speeder latch, differing only in that this latch is flat instead of twisted. The locking system, however, is the same.

Since the installation of these inexpensive devices we have had no accident on any of the frames due to the causes which the attachment is designed to prevent.

The feasibility and application of a safety lock for starting switches in our plants is the result of an incident which most fortunately did not result in an accident . An overseer, noticing that one of his twisters was not in operation, inquired of an employe as to the reason. The employe replied that a fixer had been making repairs at the opposite end of the frame, but had completed the work and probably had neglected to start up the frame again. The overseer, therefore, threw on the switch, but observing that the rolls were not turning, immediately threw it off again and rushed to the further end, expecting to find a fixer with mangled hands or arms. Fortunately the fixer had gone to the shop after additional equipment without notifying anybody that the machine should not be started pending his return. The incident so affected the overseer that he resolved a repetition of the possible accident should never occur again, at least in his department. Locking the switch in the off position on each machine appeared to be the logical solution of the matter, and steps to this end were immediately taken.

The result is an iron casting consisting of a grooved base, curved on the inner service to fit the front contour of the switch box, the upper portion a four-inch disk with "Safety First—Do not Start" in raised letters on one surface. The attachment is black, the disk face is red letter gilded. When in locked position the groove fits over the switch handle, securely wedging the device to the top over the switch handle, securely wedging the device to the top and front of the switch box and effectively preventing the switch from being thrown or frame started. When the switch is off, the attachment hangs suspended below the box by a short chain. When in use full protection from the inadvertence of employes is accorded anybody working on or about the frame. As in the preceding cases, the device is easily adaptable with slight changes in design to other types of switch boxes.

One of our greatest hazards coincident in all of our plants presented itself in the compressor warpers. Admitted a dangerous machine at

(Continued on Page 36)

VICTOR MILL STARCH – The Weaver's Friend

It boils thin, penetrates the warps and carries the weight into cloth. It means good running work, satisfied help and one hundred per cent production.

We are in a position now to offer prompt shipments.

THE KEEVER STARCH COMPANY

COLUMBUS, OHIO

DANIEL H. WALLACE, Soutern Agent, Greenville, S. C.

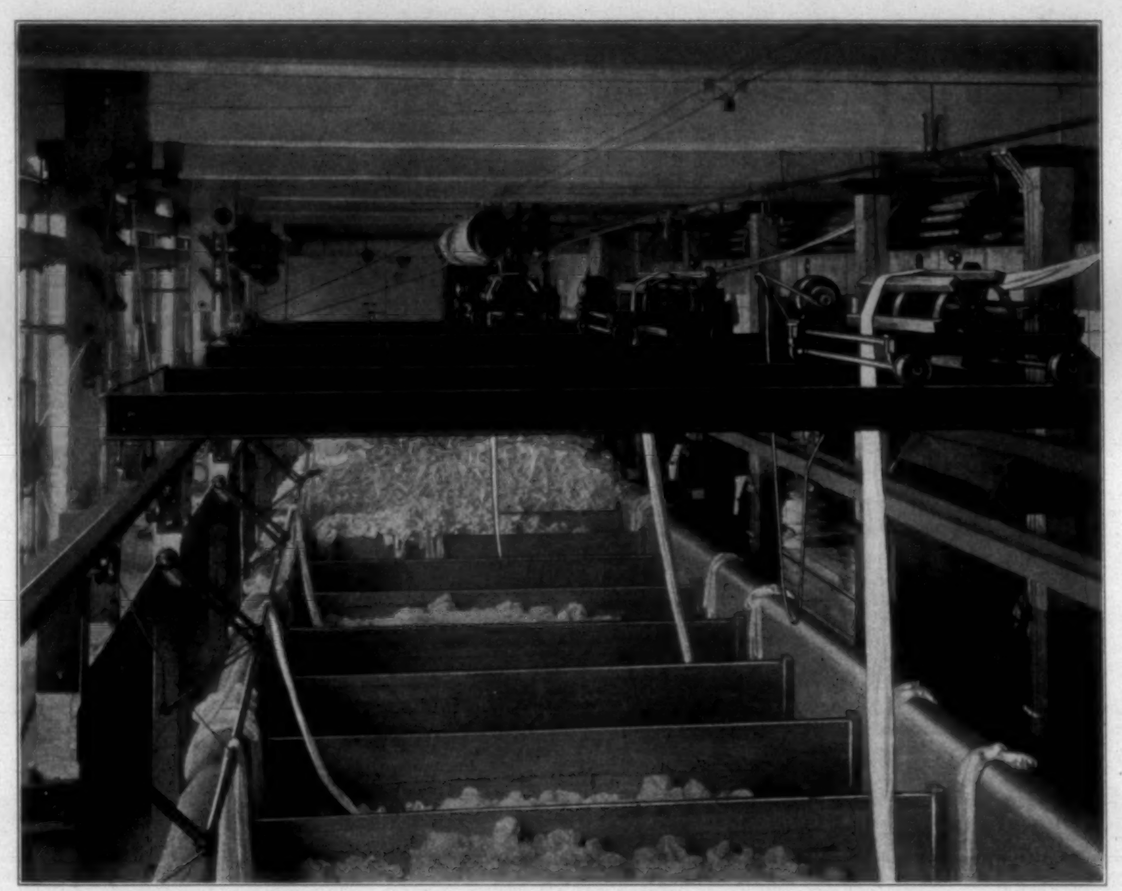
C. B. ILER, Greenville, S. C.

L. J. CASTILE, Charlotte, N. C.

PERKINS HOLYOKE

CLOTH PILER

(Bidwell Patents)



Systematically piles or plaits cloth or yarns into open tanks. Entirely eliminates hand labor. Positively prevents snarling and knotting. Distributes goods in orderly and uniform manner.

A complete unit running on independent tracks with standard electric motor built into it. Note partial list of bleacheries and dye houses using this machine.

Typical Installations Perkins Cloth Piler

The Apponaug Co., Apponaug, R. I.
The Aspinook Co., Jewette City, Conn.
Bellman Brook Bleachery, Fairview, N. J.
Manuel M. Conde, Sucs., Puebla, Mexico
Columbia Mills, Inc., Minetto, N. Y.
Dan River Cotton Mills, Danville, Va.
Dodgeville Finishing Co., Attleboro, Mass.
Dutchess Bleachery, Inc., Wappingers Falls, N. Y.
Fall River Bleachery, Fall River, Mass.
Glenlyon Print Works, Phillipsdale, R. I.
The Hampton Company, Easthampton, Mass.
Johnson & Johnson, Inc., New Brunswick, N. J.
Lewiston Bleachery & Dye Works, Lewiston, Me.
Lincoln Bleachery & Dye Works, Lonsdale, R. I.
Liondale Bleach, Dye & Print Works, Inc., Rockaway, N. J.
Montreal Cottons, Ltd., Valleyfield, Can.
Morgan & Hamilton, Nashville, Tenn.
Mt. Hope Finishing Co., No. Dighton, Mass.
Nashua Mfg. Co., Nashua, N. H.
Pacific Mills, Lawrence, Mass.
Pacific Mills, Lyman, S. C.
Providence Dyeing, Bleaching and Calendering Co., Providence, R. I.
Queen Dyeing Co., Providence, R. I.
Rockland Finishing Co., West Haverstraw, N. Y.
S. Slater & Sons, Inc., Webster, Mass.
Standard Bleachery Co., Carleton Hill, N. J.
Stevens Linen Works, Webster, Mass.
Thomaston Bleachery, Thomaston, Ga.
Union Bleachery, Greenville, S. C.
United States Finishing Co., Pawtucket, R. I.
Utica Willowvale Bleaching Co., Chadwicks, N. Y.
Waldrick Bleachery, Delawanna, N. J.
Western Shade Cloth Co., Chicago, Ill.

B. F. Perkins & Son, Inc., Holyoke, Mass.

Southern Representative: **Fred H. White, Independence Bldg., Charlotte, N. C.**

PERKINS HOLYOKE

TRADE MARK REG. U.S. PAT. OFF.

CALENDERS - DRYING MACHINES - DYEING MACHINES - FINISHING MACHINES FOR SILK
JIGGS - STARCH, WATER, AND TOMMY DODD MANGLES - PADDERS - RANGES - SCUTCHERS
SINGERS - SQUEEZERS - TENTERS - WASHERS - WINDERS

When you paint WHITE, *use* Zinc-O-Lith

A Better Paint That Costs Less

Bright walls, light ceilings, glistening white pillars have long ago "sold" themselves in the textile industry. It's no longer a question of "Shall we paint?", but "What's the best and most economical paint to use?"

Whitewash, water paints and cheap mill whites are not worth the application costs. But a *real, regular* white paint like Zinc-O-Lith—a paint that IS white and STAYS white, one that produces a fine, non-porous surface, easily cleaned, one with high reflective power—is genuinely economical.

And Zinc-O-Lith starts off with economy because of its low first cost, ease of application, great covering and hiding power.

The Glidden representative in your territory can give you some new and interesting facts and figures about mill and factory painting.

THE GLIDDEN COMPANY
National ***Headquarters,*** Cleveland, Ohio

Southern Sales Office:
J. A. Lechler, 519 Johnston Bldg., Charlotte, N. C.

—a fine type of enamel for general interior finishing on walls or woodwork. May be tinted to any shade desired. Very economical.

—an outside white, ready for use. Can easily be tinted. A white that has exceptional covering, hiding and spreading qualities.

—a high-quality, low-price flat white—for use on walls and ceilings or as an undercoat for enamels. It can be tinted to any shade.

Zinc-O-Lith *spreads daylight everywhere*

Starting Control of Electric Motors

SPEAKING before a meeting of textile specialists, at Sampscott, Mass., held under the auspices of the General Electric Co., R. H. Rench, of the Industrial Engineering Department of General Electric, presented the following paper on the arrangement of starting control on electric motors for textile mills.

Starting-control equipment for electric motors in the textile mills as well as in any other application serves two primary functions, viz:

A. To provide a device whereby the operator can most conveniently connect the motor to the supply in a manner which will permit the motor to deliver the necessary starting-torque required by the local and yet cause no undue mechanical shock to the driven member nor electrical shock or disturbance to the supply system.

B. To provide adequate protection against overload (and consequent burn out) to the motor, against fire hazard due to short circuits or grounds occurring in either wiring or electrical equipment, and against injury to operator, machine, or product due to momentary interruption in power supply. Incidentally a suitable protective device is frequently valuable in warning the operator of a failure or defect in the driven machine which might not be otherwise noticed before considerable damage had been done.

Since perhaps 9 per cent of more of the present day textile mills that are motorized use alternating current, we will confine our discussion for the present to a.c. motors and control. Of all the various operations between bale breaker and loom, practically all can satisfactorily use a constant-speed drive. This is indeed a fortunate condition because of the well known fact that the squirrel cage motor, so well suited to the constant speed load, is by far the most satisfactory motor built from the standpoint of mechanical and electrical ruggedness, maintenance, reliability, cost, control, electrical operating characteristics, and from practically every angle in which the mill operator is interested.

It is perhaps not so well-known that the squirrel cage motor can be and is designed to provide specific characteristics which make it peculiarly adaptable to specific duty cycles. Of course, when any one characteristic is favored in design, it is usually done at the expense of some other characteristics.

Openers, pickers, spinning and twisting frames, winders, extractors, and blowers can use standard general purpose motors very satisfactorily. Starting torque, overload peaks, peculiar duty cycles, etc., in none of the above cases require anything but standard characteristics ordinary found in a well-balanced motor of good design. Furthermore, when individual drive is used, the motors are relatively small and can readily be started by throwing them directly across the line (in the case of squirrel-cage motors) by means of a motor starting switch. For this duty either a hand operated switch or a magnetic type for push button operation could be provided.

Overloaded protection can be obtained with either type. Overload protection is usually built for switches of small capacity either in the form of a cartridge plug or fusible link which burns out and must be renewed, or in the form of an overload relay which may be designed to either reset itself automatically or to be reset by hand. In either case, it is essential that the time-temperature characteristic of the overload device be designed to approach as closely as practicable the heating characteristic of the motor it protects. In this way, the heavy current inrush of very short duration due to starting the motor does not operate the O. L. device and yet a sustained current value in excess of the full-load motor rating will cause the protective device to function. In this connection, of course, it must be borne in mind that the O. L. device is not intended as a short circuit protection, and additional fuses should be provided for that purpose.

In most cases the hand-operated switches do not provide undervoltage protection by virtue of which the machine and operator are protected against injury due to sudden and unexpected starting of the equipment after a momentary voltage failure. This protection is practically always taken care of in the magnetically operated switches with push button control.

Squirrel cage motors are designed at the present time so as to be suitable in construction for full-voltage starting in practically all sizes ordinarily used in textile mills. Central-station companies frequently permit full-voltage starting on smaller motors of a group installation when the resulting sarting current is not in excess of the allowable starting current of the largest motor of the group. Sometimes full advantage of this possibility is not taken by mill operators where he installation involves many motors.

There is available at the present time a line of general-purpose squirrel cage motors in ratings up to 50 h. p. designed for full-voltage starting so as to give approximately the same starting current and starting torque by using the older-type standard squirrel cage motor with a starting compensator.

It is at times desirable in order to meet local conditions or power-company rules to provide a reduced-voltage starting device. Such a device might be furnished as a starting compensator using an auto-transformer or a primary-resistance starter.

The auto-transformer starter or compensator consists of an inductive winding with taps, together with a switch for connecting the motor thereto. By the use of this device, a reduced potential is impressed upon the motor to bring it up to speed. With the switch in the starting position, the arrangement is equivalent in effect to a step-down transformer.

(Continued on Page 35)

CHARLES M. SCHWAB

"Makers of Business Prosperity"

"BUSINESS journalism has established a great clearing house of information," says Mr. Schwab, probably as widely recognized for his human understanding of selling as for his capacity as a great manufacturer.

"You cannot have prosperity," says Mr. Schwab, "without confidence, and you cannot have confidence without a free and honest exchange of information."

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Both editorial and advertising pages are made to fulfill this great responsibility. The men and methods the editors select for their pages and the advertising which the clients of this paper buy to inform its readers of their products, are brought together between the covers of a business journal for intimate help and service.

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ABP

The A. B. P. is a non-profit organization whose members have pledged themselves to a working code of practice in which the interests of the men of American industry, trade and professions are placed first--a code demanding unbiased editorial pages, classified and verified paid subscribers, and honest advertising of dependable products.

This publication is a member of

THE ASSOCIATED BUSINESS PAPERS, INC.

Practical Discussions By Practical Men

The Practical Discussion Department of the Southern Textile Bulletin is open to all readers whether they are interested in seeking information on technical questions or are willing to help "the other fellow" who has experienced trouble in some phase of his work.

The questions and answers are from practical men and have often proved extremely valuable in giving help when it was urgently needed.

The interchange of ideas between superintendents and overseers develops a great deal of worth while information that results in much practical benefit to the men who are concerned with similar problems.

You are invited to make free use of this department and to join in discussing various problems that are mentioned from week to week. Do not hesitate because you do not feel that you are an experienced writer. We will take care of that part of it.—Editor.

Question for Weavers

Editor:

I would like for you to publish this question in your next issue. What causes a Draper loom to loose filling on the change. The looms I have reference is a 36-inch E model. The transferer seems to be properly set doffing the quill straight in the middle of the shuttle. The speed is about 160 r. p. m. C. H. G.

Answer to Turn Table.

Editor:

Considering the question by Turn Table on increasing the drawing cans from 12 inches diameter to 14 inches, and the length to 52 inches instead of 36 inches, would lessen the can changes by about 33 per cent. And this would be O. K. for coarse goods. Ie would cut down the waste. It would not take up too much floor space providing the drawing frames were re-arranged.

I would not cut down the doubling from 6 to 5 . On drawing sliver weighing less than 60 grains, I would not advise this change. H. D. M.

Drawing Frame Speeds.

Editor:

There is one branch of textile machinery speeds to which I would like to direct the attention of expert men in our industry. I want to refer to the speeds of drawing frames. Why is it that there is so much variation in the speeds of these machines in different mills? The speeds in one mill may be 250 r. p. m. of the front roll. In some other mill it may be even as high as 750. It is a fact that one very successful medium size yarn mill was short of drawing frames, so they always operated them at a speed of 750. Now, if they could do this successfully, why do we ever operate these machines at a slower speed. Anxious.

How Much Yarn is Cleaned.

Editor:

As I am operating various yarn cleaning devices, and which do not all clean alike, how can I ascertain definitely just how much each device cleans?

Of course, I can see by the yarn that some yarns are cleaner than others. But what I want to know is definitely just how much the yarn is cleaned. MILL.

Card Clothing.

Editor:

For fine work what number of wire is most suitable for the card clothing? Starter.

Roll Settings.

I am anxious to ascertain how some best carders set their rolls for 1¼-inch combed peeler cotton, also for 1⅛-inch stock, in the card rooms. Staple.

Regulating Spooler Tensions

Editor:

I am having a great deal of trouble with the tension tread motions on my spoolers. I am using several different kinds of tension devices and which are all to be adjusted in a different manner. Seeing such questions are usually well answered in Discussion Department of this paper, will you please publish this question. What is the best way to ascertain how to get a uniform tension on spoolers? N. K.

Amount of Tension to Have on Yarns at Spoolers.

Editor:

When tensioning yarns at the spoolers, what is considered a safe limit of tension to apply? Section Man.

Answer to B. S. T.

Editor:

In reply to B. S. T. about setting a shaft under the condition he mentioned, will say:

First, line and level the horizontal shaft; second, draw a line with a stout cord from the center at the end of the horizontal shaft to the center of the upper horizontal shaft at the other end of the long shaft and on which there is set a bevel gear to drive a bevel gear on the upper shaft. Now, the center of the long shaft must be lined end to end on this line. The gears wear out because the shafts are out of line and out of centers. The central line of the long shaft should pass thru the central line of the horizontal shaft. Another way to prove this work is to place a smooth block on the floor and which is large enough to come directly under the ends of each shaft. Carefully level this block both ways. Now, measure from the top of this block to the center of the horizontal shaft. Now, as the end of the long shaft is 1¼ inches away from this horizontal shaft and rises one-half inch to the feet, the distance from the center of the long shaft to the top of the levelled block should be very nearly 1-16 inch higher than the center of the long shaft. The miter gears may now be set into place with the assurance that they will not wear out prematurely. Mechanic.

Answer to "Steel Head."

Editor:

The only remedy we can recommend is to return the beam heads to the makers. Pressed steel is always quite doctiie therefore it should be possible to straighten the heads in the original presses.

We know as a matter of fact that this is done by at least one large concern. No other method has proven satisfactory. M. P. H.

Answer to Young Carder.

In answer to Young Carder, will beg to say:

I think if he will try the following setter on his cards he will get some of the desired results that he asked:

Flats, medium, .010.

Feed plate, .010.

Screen under shroud, your setting is good, .034.

Back plate bottom, your setting is good, .017.

Back plate top, your setting is good, .034.

Your cylinder screen settings are good.

Doffer to cylinder setting is good, .007.

Stripping plate, .029.

Stripping comb, .012.

Doffer comb, .012.

Plate between doffer and cylinder, .012. "Jaree."

Answer to Tube.

Editor:

Tube has placed before us readers a very interesting problem. When this question was placed before me it almost staggered me to note what a big change he wants to make and how simply it can be made. He will not have to make either his change gears ten times smaller, nor his change tapered pulley ten times larger. As I have gone through this stunt, I will be glad to show him how to make this change in a very simple manner. First, increase the size of the tapered pulley from 3 15-16 inches by 3 29-32 inches to one of 4 inches by 3 15-16 inches. This does not appear to be much of a change, but, oh, boy, just try it. Run the spindle at 700 r.p.m. The traverse thread guide will make 170 strokes. Presto, the wind for 15-3 will be smooth and even. It will wind twice around the tube in one length, and recross itself five times. Run the belt as near to the big end of the pulley as is necessary to properly lay the yarn end next to end as the tube winds to be filled. If he prefers to have the wind recross six times instead of five times, and still wind around the tube twice to one stroke, change the gear to 24 T. The traverse guide should then run to and from 138 times to the spindle speed of 700 r.p.m. Still another change is available. Change the gear to 20 T. Then the yarn will wind around the tube three times, and recross itself seven times. The tread guide will then make only 114 strokes. It is all so simple when you know how! Selma.

Answer to Picker.

Editor:

How close to feed rolls should beater blades be set? The answer to this inquiry is that it depends upon the length of the cotton staple and of the grade. Ordinarily this varies from ¼ to 5-16 of an inch on breakers and finishers. But for openers the distance is increased to from 7-16 to ½ inch as local conditions demand. Cotton.

Myers Heads Gaston Association

Gastonia, N. C.—At the Gaston County Textile Manufacturers' Association meeting here, A. G. Myers, head of the Citizens National Bank, was elected president to succeed Arthur M. Dixon.

S. P. Stowe, of Belmont, was elected first vice-president, and W. B. Rhyne, of Cherryville, second vice-president.

The association is in splendid condition, according to reports of the officers.

Stone From First U. S. Plant To Be Set in Slater Plant.

Greenville, S. C.—A stone which was used in the first cotton mill in the United States will be placed in the Slater Mill at Marietta, it was announced. The stone, 8 by 18 inches, has arrived and will be placed when the new plant is virtually completed.

The stone was used in the first cotton mill of S. Slater & Sons, built at Webster, Mass., in 1793. No ceremony as yet has been planned for the laying of the cornerstone and it is probably that it will be put in place quietly and with no ceremony.

Sales Below Output in Primary Markets

Our sales for the week show a gain of fully 30 per cent over last week, stated one of the large cotton goods houses at the week-end. They are still slightly below current production. Sales of colored goods fell off from last week, but sales of gray goods were almost double. The market has not yet recovered its equilibrium after the recent shocks received from the cotton market, though it is gradually doing so. Second hand selling has been on a much smaller scale this week than last; first hands have sold some print cloths. The shade cloth people have bought substantial quantities for December-January and the rubber trade has operated freely for the same deliveries on sheetings. The bag trade continues to buy very lightly. Jobbers are not doing much on staple goods for the moment.

It is generally conceded that many more goods will be wanted for November-December delivery, but when and under what conditions this business will come forward is hard to say at the moment. The well sold-up condition is naturally the chief asset of the seller and militates against the market's falling under the domination of the buyer for some little time to come.

Cotton mill activity during August was at the rate of 89 per cent of full production, as compared with 88 per cent in July, 75 per cent a year ago and 71 per cent in August, 1925. The production of cotton goods as compared with the average production in 1923-1925 was 115 per cent, as against 115 per cent in July, 95 per cent a year ago and 87 per cent in August, 1925.

For the New York Federal Reserve District wholesale trade in August showed the largest year-to-year increase in more than two years. As in July an important factor in the increase was the large gain in sales of women's coats and suits. Fairly large increases were reported also in sales of cotton goods silks and shoes. Stocks of cotton goods at the end of the month were smaller than a year ago. Department store sales showed an increase of more than 7 per cent as compared with August 926. There was one more selling day in August this year. Sales of cotton goods at the end of the month showed a gain of 3.3 per cent as compared with a year ago.

For the country at large the Federal Reserve Board reports that wholesale trade showed a larger gain than is usual at this time of the year. Sales of dry goods and shoes were larger than a year ago. Dry goods sales showed a gain of 6 per cent; the largest gains were shown in the Atlanta district 20.2 per cent, and Dallas, 14.8 per cent. Chicago showed a decrease of three-tenths of one per cent. Dry goods stocks at the end of the month showed a decrease of 4.9 per cent as compared with a year ago. The greatest decreases were shown by Philadelphia. 24.1 per cent; Atlanta, 21.6 per cent, and Chicago, 21 per cent. Kansas City showed an increase of 11.7 per cent and St. Louis of 7.1 per cent.

For the country at large department store sales were about 7 per cent greater than a year ago. Increases were shown in every district except Dallas, which showed a decrease of 6 per cent. St. Louis showed a gain of 12 per cent. Stocks at the end of the month were in about the same volume for the country as a whole as at the end of August last year.

From these reports it is clear that consumption is still maintained on a high basis and that stocks in retail and wholesale hands continue of only moderate proportions.

Imports Are Higher

A sharp increase in the imports of specified cotton cloths during August over the preceding month and over the same month of last year is shown in the total of 4,967,439 square yards received, valued at $1,221,278, according to figures made known by the Department of Commerce. This aggregate is almost double the quantity imported during August, 1926, and is 2,118,048 square yards above the yardage received during July, 1927.

The rise, however, fails to boost the total for the year, that is, for the eight months ended August 31, above that fo the same period last year, the former being 35,704,488 square yards and the latter 38,063,187 square yards.

Major Groups Gain.

All the major divisions recorded gains over last year, including the shirtings group, which has been dropping off of late. Particularly outstanding is the large amount of goods brought into the country classed as "lawns, organdies, nainsooks, cambrics and similar fine goods of average yarn number above 40 inches, which totalled 2,596,000 square yards, as compared with 1,081,154 square yards in July and 716,454 square yards in August of last year. It is especially the bleached goods in this group which went far over the previous totals.

The shirtings division, including poplins, broadcloths, madras, etc., accounts for 1,400,427 square yards imported for the month, showing a considerable gain over the 937,732 square yards received during July and a smaller margin over the 1,283,995 square yards brought in during August, 1926.

Sateens Below July.

While the incoming sateens recorded a larger yardage than during the same month last year, they fell below the July total. The respective sums are: 606,369 square yards, 623,908 square yards, and 330,323 square yards.

Among the minor classes, small gains and losses were made, except in "jacquard woven cloths other than swivels or lappets," where the total rose from 84,809 square yards in July to 220,023 square yards in August, comparing with 133,077 square yards in August of last year. Voiles were also up rather sharply, while crepes went off from the previous totals.

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DUPLAN

Accident Prevention in Textile Mills

IN an address before the Textile Division of the National Safety Council at Chicago, G. S. Bohlin, of Cheney Bros., large silk producers, presented a very able outline of the precautions his mills are taking to prevent accidents in their plants. While Mr. Bohlin spoke particularly of silk mills, his remarks, in the main, are equally applicable to cotton mills. In part he said:

The matter of safety precaution in silk mills in a general way covers a ground similar to that in almost any other industry, and the subject can be divided into the customary general headings: (1) Mechanical Guarding and (2) Safety Education. There are, however. certain machines such as winding, reeling, doubling, twisting, coning, tubing, and transferring frames. The drive belts and pulleys on practically all these machines should be guarded to a height of 6 feet from the floor. Most of these frames also have several sets of gears which are exposed and should be properly covered.

Warping Frames.

Warping frames of the Ferris wheel type have presented a hazard which might be of interest, as this problem includes not only guarding against a real hazard but also the elimination of unnecessary noise. A gear is mounted on the end of each beam meshing with a pinion on driving end of the frame on which the beam is mounted. Formerly this set of gears was left exposed and in addition a dog was employed to mesh into the teeth of the large gear whenever the warping frame was stopped so as to maintain the tension in the warp. ride on the circumference of this gear continually, making a good deal of noise. A simple guard can be devised to cover these gears with the dog built into the guard and interlocked with the belt shifter in such a manner that the dog is raised while the machine is running and meshes with the teeth of the gear only where the belt is shifted to the loose pulley, thus guarding the gears, eliminating unnecessary noise, and still maintaing the tension in the warp.

Looms.

The outstanding hazard on looms is the flying shuttle. Experience has proved that the most effective safeguard against the flying shuttle is proper adjustment of the loom. If the loom is kept in proper adjustment, there is small likelihood of the shuttle flying out. However, it often happens that the weaver does not realize that the loom is out of adjustment until a shuttle flies out, making it necessary to provide shuttle guards. We are using a screen type of guard set in sockets on the floor at the sides of the loom.

Practically all of our looms are individual-motor driven, with the driving gears enclosed, thus eliminating the usual long series of drive belts and pulleys which have to be guarded. There are usually one or two sets of gears operating the head motions of the looms, varying with the type of loom employed, which should be guarded.

These operations include a large variety of machine, each one with its own hazard, for the most part consisting of drive belts, gears, and in some cases rollers or drums.

Individual motor drives, with enclosed gears, and easily accessible stop buttons have help to eliminate most of these hazards.

Dry cans should be equipped with the necessary guards and, in addition, a steam gauge reducing valve and check valve.

Stairways and Aisles.

Stairways should be maintained in a good condition and provided with the necessary hand rails. On several stairways, which are used by a great many employes at quitting time, and which are 4 feet or more wide we have installed a hand rail on each side as well as a dividing rail in the center. This is a very eeffctive means of preventing falls in case the employes crowd and push each other.

Aisles should be marked off and kept clean of all obstructions. This also applies to corridors, stairways, etc.

In some operations it is advisable to provide systems of ventilation for removing dust, fumes, and vapor. This is especially true in shearing operations dressing and combing rooms, and boiling and dyeing operations. In Cheney Brothers Dressing Mill we have a dust removal, air-washing system, which is very effective and which maintains an almost constant condition of temperature and humidity throughout all seasons of the year, providing very satisfactory working conditions, in what would otherwise be a very dustry operaiton. Rooms in which boiling or dyeing is done should be equipped with blowers for removing the steam and fumes.

Lighting.

Proper illumination is very important. Although we have no figures to indicate the amount of accident reduction brought about by improved illumination we feel it must have a very marked result, and in addition provides better working conditions with improved quality of work.

Cheney Brothers have had one problem in illumination which might be of particular interest, as it ilustrates an outstanding case of decreasing the possibility of accidents, as well as improving the working conditions and improving the quality of dressing and improving the quality of work to a marked degree. In our dressing mill we have a room for inspecting silk fiber which has been combed, preparatory to drawing and spinning it into spun silk. The main object in this inspection is to remove any foreign material which might still be contained in the fiber. This inspection is accomplished by laying out the fiber in thin layers on glass with light transmitted through it from underneath. The original benches were made in such a way that daylight was admitted through a skylight in the roof or windows in the walls and reflecteing surface, however, was horizontal and not directly under the glass, so that oniy a small portion of the light was reflected up through the silk fiber. The amount of daylight also varied considerably according to the weather.

In order to increase the light on cloudy days an incandescent lamp was installed under each glass, but this was found unsatisfactory as no provision was made for eliminating the glare of the filament. We are now using benches which employ only artificial light, thus giving a constant intensity of illumination, the lamps being placed out of sight in such position that there is no glare, the light being reflected from a reflecting surface consisting of a combination of two parabolic curves. In these benches only one lamp is required for two operatives, who sit opposite each other; and a very soft, pleasant working light is furnished, amply intense for the work.

Wtih the original benches, practically all daylight was excluded from the room proper, while with the new benches it has been found possible to admit a great deal more daylight, thus furnishing a much more pleasant, and safe room in which to work. Ventilation and supervision have also been improved, as there are now no shafts extending up to the roof to subdivide the room into sections, decreasing the efficiency of ventilation and making supervision of the room difficult.

In addition to the above-mentioned hazards which are more or less peculiar to the silk industry, there are a great many other hazards common to all industries. The maintenance departments are the source of a large number of our injuries. These operations have the usual problems of protection and education of the employes, and a great deal of attention has been paid to the reduction of accidents in these departments. This phasc of the problem, however, is not dealt with in detail in this paper as it is so well covered elsewhere.

Occasionally there are cases of dermatistis or skin infections of the hands among employes using dyes and printing inks and also among those on certain silk winding operations. Most of the employes hired for dyeing and printing operations are not affected in this manner, but occasionally we find an employe who is peculiarly susceptible to this form of infection and another form of employment has to be secured for him.

In the case of the winding operation, there are some individua's who are more susceptible to skin infections than others, and experiments have indicated that these individuals seem peculiarly susceptible to protein infection. Our experiments, however, are not completed, but we hope to find some method of overcoming this difficulty in the near future.

There are so many accidents of a non-mechanical nature, usually less serious but in many cases resulting in lost time, which apparently could have been prevented by the injured employe himself, that a campaign of educating the employes to realize and anticipate hazards has been found necessary in the silk industry, as well as in every other industry.

Buletin and posters, both those issused by the National Safety Council and homemade ones, have proved of value in bringing to the attention of the employes the right way of performing certain operations. The amount of reduction effected by the use of bulletins is difficult to determine, but no doubt some reduction will result from their use.

The best possible time to impress an employe with his own responsibility in preventing accidents is when he is new and under training. If properly instructed from the beginning, he will form a habit of performing his work in the safest manner. Cheney Brothers have instituted a training department which takes charge of all new employes for a certain length of time under the supervision of a trained instructor, who trains them in the best and safest manner in which to perform their particular jobs, and also impresses them with the importance of reporting an accident immediately, receiving first aid treatment promptly, etc.

Group meetings are held of the new employes after they have been employed a short time, at which pamphlets on various subjects are given out and thoroughly explained. These pamphlets include, a Book of Information, the Pension Plan, the Thrift Plan, the Benefit Association, etc.

It has often been stated that the foreman is the keyman in industry. There is no doubt that the foreman holds a very important position, and a great deal can be accomplished along accident prevention lines as well as production lines by training him in his responsibilities. We have held group meetings of foremen, at which many subjects including accidents have been discussed, and we feel that these meetings have been very much worth while. They have impressed upon the foremen the fact that they have a very important and serious responsibility toward their employes, as well as to their employer, resulting in their warning the operatives in regard to unsafe practices, more prompt first-aid treatment.

John Trislow, of Granite Falls, N. C., has become overseer of spinning, spooling and winding at the Arcadia Mills, Ronda, N. C. T. V. Hughey is overseer of weaving at the Cotton Mills Products Company, Natchez, Miss., and not night overseer as recently reported.

Charles E. Mullin, of Philadelphia, who was recently added to the teaching staff of the Textile Department of Clemson College as professor of Tevtile Chemistry and Dyeing, has an enviable record of achievement. For the past ten years Mr. Mullin has been engaged in chemical consulting and research work in Philadelphia and Camden, specializing upon textiles, dyestuffs, detergents, and related problems, and is the author of a number of technical books of unusual value.

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Solving the Farm Problem

THE following article gives the recommendations of the American Society of Agricultural Engineers for the solution of the farm problem:

Price-fixing is incapable of solving the farm problem, President Coolidge was advised today by the American Society of Agricultural Engineers. Scientific study of the agricultural situation has brought the society to the conclusion that production costs and efficiency are vital factors in the question "and that price, as important as it is, is not susceptible of enough fluctuation to furnish relief to the inefficient producer."

A committee of the society, headed by O. B. Zimmerman, of Chicago, its president, laid before President Coolidge today a 5,000,000 word discussion of the farm problem.

President Greatly Interested.

That the President was much interested may be inferred from the fact that he talked with the committee for fifty minutes, three times the length of the period allotted for the interview.

Financial Aid No Remedy.

Federal financial aid, as provided in virtually every farm relief proposal, does not offer the remedy for the agricultural situation, the agricultural engineers' committee told the President. There is a surplus of agricultural workers which sends up production costs and, in an evolutionary movement that the committee regarded as inevitable, the surplus farm workers must be cared for by some plan to develop secondary industries within agricultural areas, according to the report.

These secondary industries might grow out of the development of new uses for agricultural prdoucts, such as converting corn and artichokes into sugar, cornstalks into building boards, and valuable milk products, now used as stock feed or wasted, into condensed ro powdered milk or cheese.

Want Waste Eliminated.

First, however, a thorough and comprehensive engineering analysis is required, the committee reported. Agriculture, it held, should undergo the same character of treatment as was applied to industry by the American Engineering Council, resulting in enormous elimination of waste and the saving of millions by more efficient production methods. Such an analysis, which the Agricultural Engineers' Society volunteered to undertake, would require about five years. It would deal with organization, management, production, elimination of waste, utilization of new issues, standardization and simplification, cost accounting, effect of seasonal operations and business cycles, marketing and sales and finance and credits.

Machinery, power and engineering direction must be relied on to make the agricultural worker the equal of the industrial producer, the committee has determined by a two-year intensive study of the present farm situation.

Figures were cited to the President showing that it takes the average agricultural worker 2.18 hours to produce the market equivalent of what an industrial worker can produce in an hour.

The time required to produce an acre of wheat on similar soil was reported to vary from four to forty hours, and the cost from $37 to $7 an acre, according to the methods used.

The committee consisted of Mr. Zimmerman, an engineer of the International Harvester Company; Arthur Huntington, public relations engineer of the Iowa Railway and Lighting Company; J. B. Davidson, head of the Agricultural Engineering Department of the Iowa State College; F. A. Wirt, sales promotion engineer of the Case Threshing Machine Company, and Oscar W. Sjogren, professor of agricultural engineering of the University of Nebraska.

McNary-Haugen Bill Not Mentioned.

While its plan is opposed in principle to that of the McNary-Haugen bill, the latter was not mentioned in the conference. Favorable to any constructive co-operative plan, which provides for co-operative operation, as well as co-operative marketing, the committee sees no objection to the alleged administration farm measure.

Samuel R. McKelvie, former Governor of Nebraska, editor of "The Nebraska Farmer," and a close friend of the President, is evidently acting as Mr. Coolidge's Western field marshal in directing to the President farm authorities who might help him in his study of the agricultural question. It was he who arranged the President's interviews today wiht the Agricultural Engineering Society's committee and with the creamery co-operative delegation.

Agricultural Progress Traced.

After reviewing the progress of agriculture in America from post-Revolutionary days, when 97 per cent of the population was on the farm, down through the introduction of farm machinery, around 1850, and the period of overproduction, from 1875 to 1897, the society's report gives this summary of farm conditions in 1925:

"Physically and mentally, improvement took place in the farm operator, for the use of the machinery gives more leisure, less fatigue, and more time for education, travel and pleasure. The length of the working day is greatly shortened; wages were increased and labor of the women in the fields and many of their former household duties were largely done away with.

"Percentage of population on the farm decreased from 97 per cent in 1800 to 90 per cent in 1850 to about 25 per cent in 1927. As a result of this release of labor from the farm we have witnessed a most remarkable advance in the every-day conveniences, formerly luxuries, which now characterizes our civilization.

"Production per worker was greatly increased. Where a man with a walking plow could handle less than two acres a day, the same individual with a three-bottom tractor could plow from eight to twelve acres a day.

"Cost of production has been substantially decreased. Where previously it took three hours and three minutes to produce a bushel of wheat, the time is now calculated in minutes only, and not many minutes at that.

"Quality of products has been vastly improved, for farm operations today can be done more nearly on time than ever before. Standard of living is much higher than in the former hand method period.

Revolutionized by Machinery.

"More agricultural progress has probably been made in the last seventy-five years than in all the previous centuries.

"According to the census the average value of implements and machinery per acre of all land and farms was 52 cents in 1850, $1.44 in 1910 and $3.76 in 1920.

"To illustrate the tremendous changes in the seventy-five-year period, 1850 to 1925, consider the growing of the 1924 wheat crop of 864,428,000 bushels in the same fashion as the 100,485,944 bushels of wheat produced in 1849. At that time five bushels of wheat were grown for every man, woman and child on the farm.

"Twenty-seven per cent of the population was on the farm, so approximately 32,500,000 men, women and children on the farm grew this crop, or an average of 26.6 bushels for every person on the farm.

"At the rate of five bushels per person, as was the case in 1849, the total population necessary to grow the 1924 wheat crop would be 173,000,000 people or 61,000,000 additional people from outside the United States.

"Truly it can be said that the application of engineering principles to American agriculture has brought about remarkable development and progress, not only in agriculture but also in industries and our entire life."

Recommendations Submitted.

These recommendations were then submitted by the engineers:

"1. We solicit interest in the consideration of all of the factors which determine the farm workers' income and that due regard be given to the securing of increased production per farm worker and the lowering of the cost of production by the adoption of more efficient methods of operation and management. This recommendation in no way minimizes any sound business-like method of increasing the selling prices of farm products or the orderly marketing of same. It is further requested that in the compiling of agricultural statistics and data, major importance be given to results obtained by the best agricultural practices, rather than to average results.

"2. That in the financing of agriculture greater emphasis be placed on earnings than estimated or speculative land values.

"3. That encouragement be given to the further development of industrial uses of all farm products.

Transfer of Surplus Population.

"4. That support be given to a study of the problem of the transfer of surplus farm population to industrial activities.

"5. That indorsement be given to an engineering study to be made of the losses in agriculture in keeping with the American Engineering Council and American Society of Agricultural Engineers with the objectives of:

"A. Securing greater production per worker.

"B. Lowering the cost of production.

"6. That in the organization of flood control measures due consideration be given to the importance of retarding flood waters in the upper reaches of the drainage areas, particularly by methods now practiced by agricultural engineers.

"7. That encouragement be given to the development of an enlarged research program to support and supplement the work now so ably being conducted by the State colleges, experiment stations, and by the various Federal agencies in the solution of agricultural problems and in recommending the adoption of better farm practices.

Change in Bureau Status Urged.

"8. That favorable consideration be given to the request for the change of the status of the present division of agricultural engineering of the bureau of public roads in the United States Department of Agriculture, to that of a bureau of agricultural engineering in the United States Department of Agriculture.

"Viewed nationally, there are four essential factors involved in agriculture production, the quantity of agricultural products produced, the quality of the product, the cost of the products to the consumer, and the well being of those engaged in the agricultural industry. The present problem in agriculture is to be found in the foudth factor in the well-being of those engaged in the industry, because the quantity of products is adequate, the quality of the product is satisfactory and the cost of food and other agricultural products to the consumer is not excessive.

"On the other hand a large number of American farmers do not enjoy as favorable a situation as the individuals in other industries and vocations.

Increased Income Essential.

"We believe that the solution of the problem of improving the well-being of the rural resident or raising the standard of living in rural life depends upon, first, the development of a general desire for better living on the part of those engaged in the industry, and, second, an increase in the income of the farm worker.

"The development of a general desire for a better standard of living upon the part of those engaged in agriculture is largely a matter of education. It is recognized that a high standard of living depends in a definite way upon income; yet an adequate income may no the used to improve living conditions.

"The income of the farm worker depends upon many factors which may perhaps be best related by the equation: Income—(selling price of agricultural products—Cost of pro-

(Continued on Page 32)

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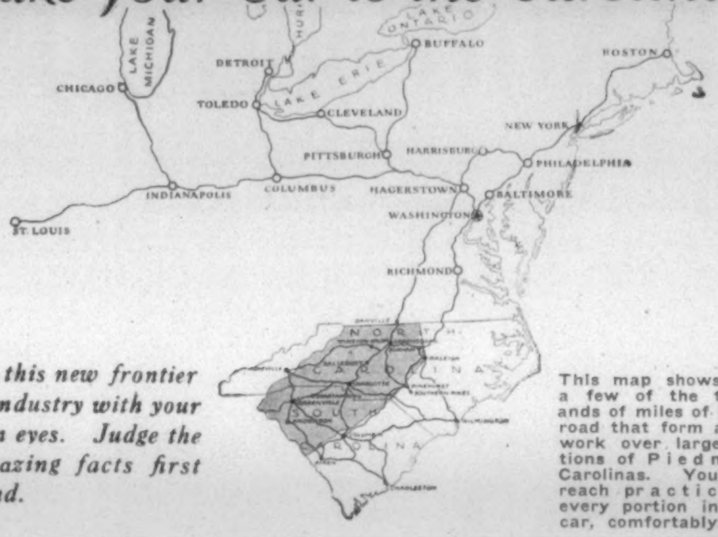

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Who can tell, so well as you, what the market opportunities are, the raw material sources, the labor supply, the power and transportation facilities?

Who can size up first hand, better than you, the ideal location for your factory, the living conditions you will encounter?

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Engineering reports and lengthy analytical studies of locations are valuable and should be obtained, but business leadership is built on vision and imagination and those qualities are not something to be caught second-hand.

You doubtless know the Carolinas from travelling through them, from holiday visits to their world-famous resorts for golf or recreation. You may be familiar with conditions as they were 20 or 25 years ago. Such impressions ought to be supplemented by a first-hand *working* knowledge of *today's* business and industrial facts about the section.

So that your time may be conserved and devoted to those sections that are of most interest to you, our Industrial Department is prepared to supply detailed road routes, with mileage tables and hotel accommodations that will make your trip interesting and profitable.

Make This Memo for Your Secretary

A note, giving the approximate date of your coming and a word or two as to the things you want to see, will be enough. *Make a memo for your secretary on the margin of this page and have her write at once to Industrial Department, Room 1107, Mercantile Building, Charlotte, N. C.*

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SOUTHERN
TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

Published Every Thursday By
CLARK PUBLISHING COMPANY
Offices: 18 West Fourth St., Charlotte, N. C.

THURSDAY, OCTOBER 6, 1927

David Clark — *Managing Editor*
D. H. Hill, Jr. — *Associate Editor*
Junius M. Smith — *Business Manager*

SUBSCRIPTION

One year, payable in advance	$2.00
Other Countries in Postal Union	4.00
Single Copies	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

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The Advantage of Not Knowing

THANKS to the brilliant work of cotton manufacturers in inducing the Government to eliminate semi-monthly cotton estimates, we have had another thirty days of doubt and both the cotton speculators and the buyers of cotton goods have taken full advantage of same.

Practically every purchase of cotton goods or yarn has been accompanied by an effort to secure lower prices, based upon the question of the accuracy of the Government report of September 8th.

There is indeed an advantage in not knowing the size of the crop, but such advantage is all on the side of the speculators and cotton goods buyers.

Had there been a semi-monthly report on September 25th which either confirmed or disproved the September 8th estimate a more stable condition would have existed and the situation would not have remained to the advantage of cotton goods buyers.

The market has for the past ten days been under the influence of private estimates, and as they range from 12,158,000 to 13,755,000 bales, the cotton manufacturer does not know which way to turn.

The table below of private estimates made prior to the Government reports of this year will be found interesting:

With one exception all of the private estimates show a decline since September 8th and in one instance the decline is 1,100,000 bales.

The exception is the Southern Cotton Company, which prior to September 8th, made an estimate of 12,038,000 bales, but now make the crop 12,659,000, and as they have had a record of reasonable accuracy their reason for making an increase furnishes food for thought.

We do not believe that many take seriously or have any confidence in any estimate made by J. W. Jay & Co.

They give a most amusing explanation of reducing their estimate from 14,700,000 to 13,600,000, saying that they discovered that the cotton bolls were smaller this year than usual.

If they are using a micrometer on cotton bolls they ought to be able to make better guesses than has been the case in recent years.

Confidence in the price of cotton and cotton goods has been seriously shaken as the result of the activities of the Department of Agricultural Economics.

Just prior to the publication of their famous observations about a probable decline in the price of cotton three of the largest of the speculators sold several hundred thousands of bales in the shape of cotton futures.

	Prior Report to Aug. 8	Prior Report to Sept. 8	Prior Report to Oct. 8
Fossick	14,700	13,842	13,755
Proctor & Gamble	15,329	......	......
Japan Cotton Co.	14,578	12,745	12,158
Watkins	14,500	12,900	12,286
J. W. Jay & Co.	14,700	14,700	13,506
Sou. Cotton Co.	13,983	12,038	12,659
Miss Giles	14,528	13,500	13,260
McFadden	......	12,800	......
Fairchilds	......	12,863	12,684
Journal of Commerce	......	13,334	12,955
Government	13,492	12,690	?

Prior to their later statement of a carryover August 1, 1927, of 7,800,000 bales the same speculators again sold very large amounts of futures.

Certain speculators made millions as the result of the two "opportune" statements of the Department of Agricultural Economics.

Possibly it is only a coincidence that the same people sold short just prior to each statement but Congress should make an investigation and should take note of any unusual or marked coincidence.

In order to make their last bearish gesture the Department of Agricultural Economics had to accept at full face value the figures of International Federation of Master Spinners in spite of the consumption figures of that organization fail to tally over a period of ten years, with the supply of American cotton by over 3,000,000 bales.

The Federation of Master Spinners has no interest in the welfare of the Southern cotton farmers and it would suit them for cotton to sell at 5 cents.

Their failure to account for over 3,000,000 bales of cotton that was raised and ginned may have been due to their desire to cover up the real consumption because consumption is a bullish factor.

In spite of that fact the Department of Agricultural Economics accepted at full value the figures of the Master Federation and produced a carryover figure that broke the market and big speculators who had sold short prior to the publication of that figure made millions.

To say the least, it is very unusual for a Department of the United States Government to place such implicit confidence in the figures of a manufacturers association of Europe.

The Master Federation of Spinners admits that their figures are "calculated" and are based upon only 90 per cent of the mills, and furthermore do not take into consideration the number of bales of cheap, low grade American cotton sold during the past season for mixing with woolen goods, for batting, stuffing, rayon, the arts and other sources of consumption disassociated from the spinning industry.

The experts (?) of the Department of Agricultural Economics in the face of these figures used them as the entire consumption and thereby produced a carryover figure for August, 1927, of 7,800,000 bales, and the production of that figure by a Governmental bureau greatly benefited certain speculators.

When cotton was 14 cents we called attention to the fact that it was below the cost of production.

When cotton was 17 to 18 cents we wrote three editorials calling attention to the coming boll weevil activities and urging mills to buy cotton.

When cotton went above 22 cents we stated that it was in debatable grounds and since then have urged no one to buy.

With confidence shaken by the two statements of the Department of Agricultural Economics, the bears may be able to temporarily drive prices lower, but the situation is fundamentally sound and a crop of 13,500,000 should not be considered bearish.

Much is being said about reduced consumption as the result of present prices, but American consumption is already 250,000 ahead of last year, and in spite of statements about European spinners being loaded with cotton, the world takings of American cotton by spinners up to September 23rd were 1,871,430 bales compared to 1,678,730 last year or an actual increase of 192,700 bales.

In spite of the fact that exports were 11,000,000 last year and that that figure must, of necessity, be reduced by 4,000,000 this year, exports were on September 28th only 152,558 bales behind last year.

With confidence temporarily shattered and big speculators in control of the market, we do not hazard a guess as to the course of prices, especially if the Government should increase its estimate, but do predict a later return to the present or higher prices.

Coming events often have more effect upon cotton prices than actualities and we urge cotton manufacturers to consider 1928.

Soon the world will realize that with the reduced carryover of next August 1st the South must produce a crop of at least 16,500,000 bales in 1928.

The South can and may raise a crop of that size next year, but when it is a necessity any unfavorable weather will raise a question and the result of any real crop damage will be the signal for fireworks.

Our advice is to picture and consider the spring and summer of 1928.

Progress of the Institute

THE Cotton-Textile Institute becomes a year old this month. To mark its first milestone, the Institute has issued a very interesting summary of its achievements during its first year. This review, which is printed elsewhere in this issue, presents a record of definite accomplishment which we believe will exceed the expectations of most of those who were responsible for its foundation.

Many mill men have felt that the Institute idea was a vague, hazy sort of theory with little practical value. Others have expected it to promptly put the textile industry on a prosperous basis. Between these two viewpoints, far-seeing men who have a real vision of the possibilities of the Institute, now feel that the industry has at last begun a movement which will in time result in bringing the cotton manufacturers out of the dark.

The report just issued deserves the careful study of all cotton manufacturers.

Personal News

R. M. Stover has resigned as overseer carding and spinning at the Morice Twine Mills, Roanoke, Va.

T. J. Reynolds has become overseer of carding at the Morice Twine Mills, Roanoke, Va.

Luther Fox has been promoted from overseer of night spinning to overseer of day spinning at the Morice Twine Mills, Roanoke, Va.

Robert Cone has been promoted from second hand in day spinning to overseer night spinning at the Morice Twine Mills, Roanoke, Va.

J. E. Waldrop, from Spartanburg, S. C., has been appointed designer at the Altavista Cotton Mills, Altavista, Va.

K. B. Cook is technical superintendent at Winnsboro, S. C., and is in charge of development, experimental and research work.

A. L. Garner has resigned his position as overseer weaving, Consolidated Textile Corporation (Lynchburg Plant), Lynchburg, Va.

W. H. Thompson has resigned his position as section hand in card room of Mill No. 2, Thomaston Cotton Mills, Thomaston, Ga.

W. S. Montgomery, Jr., of Spartanburg, S. C., has been elected treasurer of the Gaffney Manufacturing Company, Gaffney, S. C.

D. P. Short, formerly of Tarboro, N. C., has become overseer weaving for the Consolidated Textile Corporation (Lynchburg Plant), Lynchburg, Va.

James Craft, formerly of Cascade Mills, Mooresville, N. C., has accepted a position as second hand in the cloth room at Lincoln Mills of Alabama, Huntsville, Ala.

W. L. Saffer, formerly with the May Hosiery Mill, of Nashville, Tenn., has become general superintendent of Paducah Hosiery Mills, Paducah, Ky.

O. S. Ernest has been changed from section hand in card room of Mill No. 2 to card grinder, Mill No. 2, Thomaston Cotton Mills, Thomaston, Ga.

J. J. Kinsey has resigned as night overseer of carding in Mills Nos. 2 and 3, Thomaston Cotton Mills, Thomaston, Ga., and has accepted a position as overseer of carding at the Adams Duck Mills, Macon, Ga.

J. W. Pitts has resigned as overseer of spinning, spooling and warping at the Henrietta Mills, Cherokee Falls, S. C. His help presented him with a handsome fountain pen as a token of esteem.

A. N. McAbee has resigned his position as overseer carding at the Adams Duck Mills, Macon, Ga., and has accepted a position as section hand in Mill No. 2 of the Thomaston Cotton Mills, Thomaston, Ga.

John S. Garraux, who has been director of boys' work at the Y. M. C. A., Greenville, S. C., has been appointed director of welfare work at the Judson Mills, of that city.

G. M. Hamilton, of Greenville, S. C., has accepted a position as Chicago representative of the American Yarn and Processing Company, Mt. Holly, N. C.

D. P. Shover has resigned as overseer of weaving at the Arista Mills, Winston-Salem, N. C., and accepted a position at the Inverness Mills, of the same place.

T. W. Stewart has been promoted from day card grinder in No. 3 Mill of the Thomaston Cotton Mills to night overseer of carding in Mills Nos. 2 and 3, Thomaston, Ga.

G. D. Usery has resigned as second hand in twisting at the Loray plant of the Manville-Jenckes Company, Gastonia, N. C., to become overseer of night warping and twisting at the American Mills, Bessemer City, N. C.

George H. Parker has resigned as overseer of spinning and spooling at the Bibb Mill No. 1, Macon, Ga., to become overseer of twisting, spooling and rewinding, rewarping, winding and baling at the Martha Mills, Thomaston, Ga.

Alfred Moore has resigned as treasurer of the Gaffney Manufacturing Company, Gaffney, S. C., a position which he had filled for many years. Mr. Moore continues his connections with the Iva and Welford plants of the Jackson Mills.

W. H. Taylor, who for some years has been superintendent of the silk plant of the Republic Mills, Great Falls, S. C., has resigned that position to accept an appointment of general manager of the new Slater Manufacturing Company, to be built at Marietta, near Greenville.

F. Kilby Hall, of Milton, Mass., has been appointed a cotton technologist at Clemson College, Clemson, S. C., and will assume his duties there on Saturday. Mr. Hall has been assistant to Secretary Russell T. Fisher, of the National Association of Cotton Manufacturers, for the past two years. At Clemson, he will work under the direction of Horace H. Willis, who is in charge of cotton research in the college, which is part of the activities conducted by the United States Department of Agriculture.

Pruitt With Gastonia Belting Co.

Thos. G. Pruitt, who for some years has been with the Parker Belting Company, of Gastonia, N. C., has sold his interest in that company to R. F. Parker and is now associated with the Gastonia Belting Company. Mr. Pruitt is widely known in the Southern mill territory as an expert belt man and salesman.

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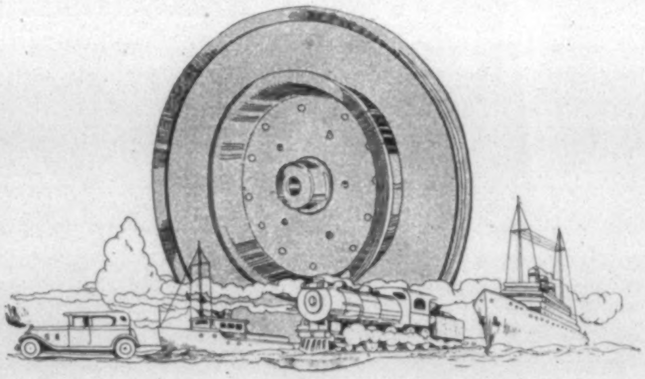

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MILL NEWS ITEMS OF INTEREST

Ronda, N. C. — The Arcadia Mills have completed installation of additional carding equipment and have made a number of other improvements at the mill. The houses in the mill village have been repainted and improved. The mill is running full time and is being very efficiently operated.

High Point, N. C.—L. O. Smith and associates plan the erection of a new hosiery mill, and are organizing a company to have a capital stock of $150,000. Mr. Smith's address is P. O. Box 724. He is interested in purchasing hosiery equipment and supplies.

Anderson, S. C.—Due to the health of the owner, Albert S. Farmer, the Conneross Yarn Mill will be sold immediately. The mill is being advertised for sale by the owner.

Mr. Farmer plans an early retirement. He recently disposed of other interests here in the sale to the Carolina-Georgia Service Company, of the Anderson Cold Storage Company.

The Conneross Yarn Mill has for some years been engaged in the manufacture of asbestos. For several months its products has been yarn, etc.

Greenville, S. C.—Wyllys H. Taylor, of the Republic Cotton Mills, of Great Falls, S. C., has been appointed Southern manager of the Slater Manufacturing Company interests. He will have active charge of the $1,000,000 Slater mill now under construction at Marietta in upper Greenville county.

Mr. Taylor has been with the Republic Mills since the war. He is a graduate of Clemson college.

The Slater plant in this county will have 700 looms and 20,000 spindles manufacturing an all-cotton fabric. A special rayon-filled fabric will likewise be made and dyed in the mill.

Construction work on the two-story mill building and 100 tenant houses is about half completed.

Charlotte, N. C. — Machinery and equipment for the new Charlotte branch of the Lambeth Rope Corporation of New Bedford, Mass., is being installed in the Wade Loft building and officers announced that the plant will be open this year.

Two cars of machinery have been received and a third is enroute to the city, it was said.

Harold W. O'Leary, representative of the company headquarters, is in the city indefinitely and at present is in charge of preliminary arangements. Mr. O'Leary signed a lease in the Wade Loft building June 1.

The Charlotte plant will manufacture spinning and twisting tapes and narrow fabrics. The company was founded in 1893. The plant at New Bedford is valued at $400,000, Mr. O'Leary said.

Lanett, Ala.—Plans were announced recently for an addition to be constructed by the Lanett Dye Works and Bleachery. Bids are returnable in about ten days and the contract will be let at that time if any of the bids are found to be satisfactory.

The plans call for the addition of about 30,000 square feet, one or two stories high. The contract will be let from the office of J. E. Sirrine & Co., Greenville, S. C.

Gaffney, S. C.—W. S. Montgomery, Jr., of Spartanburg, was elected treasurer of the Gaffney Manufacturing Company to succeed Alfred Moore, of Wellford, resigned, at a meeting of the directors held in the offices of the mills here.

Mr. Moore's resignation will becom effective September 30, at which time Mr. Montgomery will take over the duties of the treasurer's office.

Mr. Montgomery is a son of Walter S. Montgomery, Sr., of Spartanburg. For the past several years he has been assistant treasurer of the Spartan Mills at Spartanburg.

The officers of the Gaffney Manufacturing Company now are: G. H. Milliken, of New York, president; Maynard Smyth, of Gaffney, vice-president; W. S. Montgomery, Jr., of Spartanburg, treasurer, and R. P. Carson, of Gaffney, secretary and assistant treasurer.

Honea Path, S. C.—J. D. Beacham, suprintendent of the Chiquola Manufacturing Company, announced that extensive improvements will be made on the streets and sidewalks of the mill village. The contract for the work has already been let to the Henry Construction Company, of Greenville, and work will begin within the next few days. All of the sidewalks will be paved and curbed and where needed the roads will be topsoiled.

It has been strongly rumored that other improvements are contemplated which include an addition to the mill and additional spindles and looms. As to this, however, Mr. Beacham would make no statement.

Loudon, Tenn.—Improvements at Loudon and Lenoir City plants of C. H. Bacon & Co. are nearing completion and are partly in operation.

At Loudon, the new boiler plant with two 300 H. P. Casey-Hedges boilers and combustion engineering stokers, will replace the old boiler plant which had become inadequate for increased dye house and general steam demands.

At Lenoir City, the new three-story building will be used for storage on first floor, inspection on second and boarding on third. An elevator connects all floors in the new building with present building. New space will materially increase production.

J. E. Sirrine & Co. were engineers for the improvements.

Laurens, S. C. — Having met the conditions of the proposal with a subscription of $75,000, it was announced that the Pioneer Braid Mill of New York will move its machinery to Laurens just as soon as a suitable building can be provided.

Committees on incorporation and building were named at a recent stockholders meeting. The new company is to be capitalized at $225.000, and in operation here it is stated that about 200 people will be employed at the beginning.

Joe Alderman, of New York, is owner and manager of the braid mill, and he will come to Laurens to continue as general manager, for it is said that he is thoroughly familiar with the manufacture of a great variety of novelties and the specialties which the factory turns out. It is the understanding that Laurens is to name six of the seven members of the board of directors, Mr. Alderman to be the only director outside of the local members.

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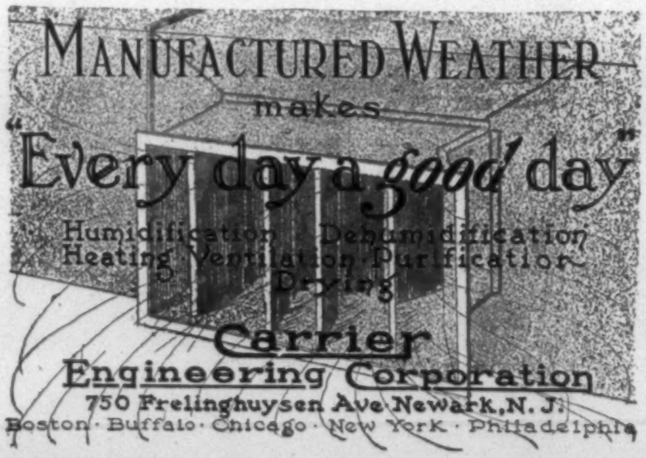
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Raleigh, N. C.—A special meeting of the stockholders of the Raleigh Cotton Mill has been called for October 25, to consider a resolution adopted by the board of directors, which reads: "Resolved that in the judgment of the board of directors of Raleigh Cotton Mills, Inc., it is deemed advisable and for the best interests of said corporation that it be dissolved." The mill has not suspended operation.

If dissolved, its property will be sold by the directors at public or private sale. The Raleigh Cotton Mill, organized in 1888, is the oldest of the three textile plants here. It has a capitalization of $235,000 and employs about 300 people. Officers are Kenneth Gant, president; F. T. Ward, secretary; George Greason, treasurer and manager. The directors are: B. S. Jerman, Henry T. Hicks, Frank T. Ward, Kenneth Gant, John R. Chamberlain, C. B. Barbee and W. J .Young.

Rocky Mount, N. C.—A silk mill for Rocky Mount is assured in the near future, it was learned from chamber of commerce officials following an active campaign in which approximately $175,000 has been raised for the new industry.

Of this amount, it was learned, $125,000 is in preferred stock, while the remaining $50,000, for which canvassing is continuing, will go toward the erection of a plant here. The concern itself, which at present operates a large factory in one of the Northern States, will put nearly twice that amount into the plant here.

Negotiations for the factory here have been under way for some time as representatives of the chamber of commerce have made several visits to New York, and officials of the Northern corporation have come to Rocky Mount for conferences. A tentative agreement for the local tie-up has already been accepted, and the formal contract is to be signed, it is understood, just as soon as the financial campaign is wound up.

Clinton, Tenn.—Magnet Knitting Mills let contract to Roehl & Gervin, 215 N. Broad street, Knoxville, for power plant; for 350 h.p. boiler, to Casey-Hedges Co., Vulcan street, Chattanooga; underfeed stoker, Biggs Stoker Co., Holston Bank Bldg., Knoxville; forced draft of equipment to American Blower Co., 6000 Russell street, Detroit, Mich.; 6x150 feet radial brick stack, to Rust Engineering Co., Woodward Bldg., Birmingham, Ala.; boiler feed pumps to Worthington Pump and Machinery Corp., 115 Broadway, N. Y.; for time being plant will supply process steam only at 100 pound pressure; W. E. Biggs Engineering Co., Holston Bank Bldg., Knoxville, engineers.

Lavonia, Ga.—J. M. Battson, president and manager of Lavonia Manufacturing Company, lists the following improvements and new work which have been done a ta cost of at least $150,000, since undertaking the improvement of the plant here.

Put new roof on mill; installed new system of lighting, designed by J. E. Sirrine & Co.; built new warehouse of 20,000 square feet and rebuild old warehouse, developed water supply, erected 75,000 gallon tank and installed sprinkler system throughout warehouses.

Built new modern opener room and equipped with Saco-Lowell system of cotton cleaning; rearranged machinery throughout the mill for economical production and repaired the equipment; installed 23 new Saco-Lowell cards, one new breaker picker, new drawing (both first and second processes new), one new roving frame, one high-speed warper.

Built modern dyehouse and equipped it with new modern machinery; built new waste house and equipped press and Saco-Lowell waste machine; remodeled village and put in water and lights at cost of about $15,000; built four new dwellings, bought two, and built village church.

Put in new system of humidifiers; built additional floor space in basement of mill; built conditioning room; now having plans drawn for installing electric equipment for electric drive.

The mill produced 1,017,000 pounds of yarn for the year ended August 31; and is sold ahead until some time in 1928.

Old Cotton Gin Goes To Ford's Museum

Raleigh, N. C.—A cotton gin, modeled after that first machine constructed by Eli Whitney and which has for the past 26 years had a place in the North Carolina State museum here, has left its resting spot and gone to increase the museum being created at Dearborn, Mich., by Henry Ford, museum authorities have announced.

The gin was the property of Ben May, Jonesboro, who has allowed it to stay in the museum for more than a quarter of a century. He sold the homely little box-like structure of metal saws and wooden gears for a thousand dollars.

There seems to be no authentic record of the maker of the gin, but it is supposed to have been used until about 1840, after which it came into the possession of Jack May of Kinston. Later it became the property of Ben May and on April 6, 1901, he sent it to the State museum, writing that "I will loan the gin to the museum if you will guarantee to return it to me or my heirs on demand."

The gin kept its place with the agricultural, natural history, and natural resources exhibits of the museum through the years, and was viewed by thousands upon thousands of visitors. Then on February 7 of his year a Mr. Stakes of Detroit introduced himself as a museum visitor with an amateur interest in old machinery.

He was shown the machine and returned later to make photographs of it. The next development was when May came to take possession of his loan. He had to bring Stacey Wade, State Insurance Commissioner, to identify him as the party to whom the gin belonged. It was delivered to a local representative of Henry Ford and unloaded.

The machine will be part of an exhibit in the Ford museum of the evolution of cotton machinery at Dearborn, it was made known. Efforts to secure another old machine owned outright by the State museum have not been successful. This machine, a combination gin, carder, and spinner, is to have a central place in the exhibits in the hall of agriculture.

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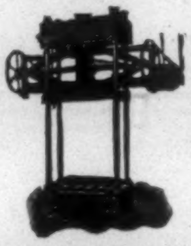

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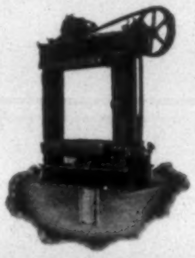

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Mills Need Price Stabilization

MANUFACTURERS of fine and fancy textiles have had under consideration for a long time the question of stabilizing their division of the cotton goods markets and improving the systems under which market prices are secured and quoted. It would be illegal, even if it were possible, to take any concerted action to control or regulate prices, and such a thing is neither desired nor intended. From all that has appeared thus far nothing more has transpired than discussions among individual members, or among officers of exchanges engaged in the work of reporting on past sales, stocks, etc.

It is known in a limited way, at least, that complaints arising from present conditions have been heard from large converters and other buyers whose necessities force them to make large commitments with mills to cover their gray goods requirements over long periods of finishing and selling. Some of them are known to have manifested a close interest in the results of private studies already made, and have volunteered to co-operate with mill agents in trying out any feasible plans looking toward improvement.

Origin of Difficulties.

Many causes have been operating to produce the dissatisfaction expressed with present conditions. The multiplicity of brokers, the tendency to speculate in gray cloths, the wide diversification of product in quality and construction, the degeneration of trade morale, and the gross misuse made of published primary market prices by retailers or others who assume to buy merchandise by width, weight and count and sell only at the highest price the traffic will bear, are suggestive of some of the sources of discomfort.

Curiously enough, the change that has come about by which the intimate details of gray goods trading in all their varying phases have become crystallized in the regular publication of long lists of quotations, is welcomed and supported by producers as well as by those to whom they sell. Perhaps this should be modified in many instances into the statement that the change is tolerated or endured, rather than welcomed or supported.

Commend News Service.

A great many of those who have been heard to complain of the extending lists of prices, and the seeming authority with which they are given publicity, have been constantly generous in their praise of the "news service" of trade publications that specialize in the work of quoting markets accurately. While it is conceded by all that the lists are remarkably well prepared, it is well known that no other great industry save cotton goods does business so largely on reports not originating within the trade itself.

In wool goods, silks, burlaps, linens, etc., no serious attempt is made to report prices in the detail apparently exacted and certainly supported and handsomely backed by cotton goods men. In those divisions of textiles, at least, cloths are stated to be bought more generally as merchandise and sold in the same way than in the case of cotton gray goods. There has been the same diversity of product in recent years in those divisions as in cottons, but the details have not been widely assembled and published.

Limits to Service.

There are many well defined limits to the service of quoting prices regularly in trade papers, not the least being those arising from the fact that when all is said and done such quotations have an element of hearsay about them rather than a sure foundation based upon handling bids, sales notes and offers. To avoid the pitfalls of inaccuracy, attempts made to have brokers prepare lists or check them over daily have always disclosed that many quotations were taken for granted on hearsay by the brokers and not made up from an exchange of information within a circle of buyers and sellers, whether brokers, commission houses, mill agents, converters or others.

It is only when the work of such agencies is compared in daily detail with the check-up of investigators who have been going into the reports for some time that it appears that the inherent limitations of present systems are working constant injury to mills and those who represent them, and many times to buyers of goods representing converters or others whose values have been affected by the reports or by what they purport to show.

Diversified Products.

It is hard for the men in the trade not actually engaged in fancy goods production in a large textile plant to comprehend the wide diversity of product in a single plant. As many as 225 different cloth constructions, in the gray, have been checked up as in process in some large plants, and where colored goods in the gray are woven, many more variations have been reported. While no serious attempt is made to report the details of trading in the colored goods, nevertheless, the quoting of a base price on many lines gives the buyer the clue he needs to hammer down prices.

A single type of merchandise such as a cotton broadcloth has been quoted with all the apparent accuracy that attends a price put upon the board at a cotton, stock, or produce exchange. There are as many varying elements in costs going to make up the intrinsic value of a broadcloth as may be imagined and they cannot all be crystallized in the enunciation of a price on a given width, weight, or count. They may be made of entirely different stock as to cotton or yarn, but experience has taught that the burden of proving them to be different, fails upon the seller whose chief handicap consists of a quotation on a printed page.

Some fine goods manufacturers and others who have been going into the problems of exchange reporting on quotations have heard the suggestion that it would be possible for merchants, agents, brokers, or others having to do with sales notes, to meet daily and issue a list of quotations on various lines of goods purporting to state the prices at which goods might have been bought or sold on the day of issue.

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Established 1896 Incorporated 1914
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Manufacturers of
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AUTOMATIC SHUTTLES
Our Automatic Shuttles are giving Perfect Satisfaction in Leading Mills throughout the country on all classes of work.

Newspapers might elect to publish such a list and it would not limit their rights to do as they pleased about adopting that sort of a system of reporting the markets regularly. In the long run of the weeks, trade papers, of course, would follow the policy that would best serve their trade clients. Such a list would gradually assume a barometric character and would ultimately displace lists secured in an unofficial way. It would not follow that its publication would mean the limitation of trading above or below the list. It would simply be a list of quotations balanced and prepared by those who know all the details of a day's business from contact with it. It is such a list as any large commission house might have covering its own mill's doings for any day.

The extent of the complaints heard concerning the usages in the brokerage field is hardly appreciated until mill men are encountered on their own plants. Many mills have no direct connection with brokers, the selling house looking after all the details of the trading. Many commission houses no longer attempt to trade with any and all brokers, preferring as a rule to limit their bidding to a very few brokerage houses. In the same way many mills' making fine and fancy goods pay only a perfunctory attention to bids made by brokers other than those whose methods they have tried and have approved.

Cotton goods brokerage in the larger sense has long since ceased to be a mere payment for service rendered in bringing a buyer and seller together, and in the departure from primitive methods there has also come a departure from primitive ideals. Some brokers who know that one converter has placed an order on a given quality and construction of cloth do not hesitate to report the fact to a competing converter for the sole purpose of earning a commission from the transaction. The ethics involved, if there are any such things any more, are not considered important.

The use or misuse of cotton cloth trade information is really the thing at which manufacturers are driving and in seeking means of stabilization they hope chiefly to bring about that degree of co-operation between themselves and their customers that is needed to lessen or at least circumscribe some notorious trade evils that have been flourishing since the war began, and since easy money could be made by anyone who had a desk and a telephone.

Many of the problems that are being discussed are not likely to come before a cotton institute or similar general body for any action save the one of sympathetic commendation after something has been accomplished. These problems are most pressing in the fine and fancy divisions because so much harm may be done by telling half a story of a transaction on cloths costing much more than those of plainer or coarser construction and less susceptible of trade damage through abuse.

Conference on Distribution

Important problems relating to the distribution of cotton textiles were discussed at a conference attended by representatives of manufacturing and distributing interests in the office of the Cotton-Textile Institute, Inc., in New York.

The conference was attended by delegations representing the wholesalers and retailers' associations, the finishers and converters' association, the Association of Cotton Textile Merchants of New York and the Institute. It was unique in that both wholesalers and retailers were represented with othe rgroups for a discussion of problems relating to the distribution of cotton textiles.

There was frank and friendly interchange of views as to problems of common interest, and committees were appointed to study and report upon hand-to-mouth buying with its effects on th ecost of manufacture and distribution of cotton goods, and upon the relationships of wholesalers and retailers to those representing the manufacturing phases of cotton textiles.

Walker D. Hines, president of the Cotton-Textile Institute, who presided at the conference, said after the meeting:

"I am greatly pleased that this conference has been held and that future conferences of a similar character are contemplated, as I believe they will do much to make the problems of each branch of the cotton textile industry and commerce better known to all the other branches.

"More complete understanding would be advantageous to all the interests represented as well as to the interests of the ultimate consumer. The spirit fo the conference was most encouraging and gave promise of important educational results in the future."

Those attending the conference were: Julius W. Cone, Charles F. Broughton, and Mr. Hines, representing manufacturers through the Cotton-Textile Institute.

Spencer Turner, president of the Association of Cotton Textile Merchants of New York, Bertram H. Borden and S. F. Dribbon, representing commission merchants.

M. J. Turner, president of the Converters' Association, and Albert Mannheimer, representing converters.

J. K. Milliken, president of the National Association of Finishers of Cotton Fabrics, H. B. Thompson and P. A. Johnson, representing finishers.

S. M. Bond, James Rae and W. J. Bell, representing the Wholesale Dry Goods Association of the United States.

Lew Hahn, managing director of the National Retail Dry Goods Association, H. C. Kingston and Louis Barnett, representing the retailers.

Representative Wanted

North Carolina manufacturer of loom supply desires hustling representative. Prefer man who knows looms and the trade. Will pay salary and expenses and furnish car. Good opportunity, but must be willing to start right and grow with the business. In replying please give all details, experience, etc. Apply "R," Southern Textile Builetin.

Wanted to Buy

We are interested in buying 210 Model E 40-inch Draper Looms. Must be late model in first-class shape. Address J. W. Porter, Steele's Mills, Rockingham, N. C.

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SAN FRANCISCO
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NATIONAL DYES

NATIONAL N DYES

Solving the Farm Problem

(Continued from Page 25)

duction)—Times quantity of product produced.

"At the present time much emphasis is placed upon the relation of price to income. An increase in price with a corresponding increase in cost due to increased land values does not result in an increased income, and therefore we believe the interest of the land speculator to be opposed to the best interests of the farmer.

Co-operative Marketing Indorsed.

"We strongly indorse the plan for orderly co-operative marketing as outlined by Secretary of Agriculture William M. Jardine as a sound and logical method of stabilizing and increasing agricultural prices.

"Labor and power are large items in the cost of production varying from 40 to 85 per cent of the cost of producing field crops and offer the most inviting opportunity to increase income through efficiency and increased production. It is through efficiency in the use of these factors of production that the American farmer now maintains an enviable position compared with farmers in other countries. It is through further advance in efficiency that he may be expected to advance to a more desirable situation. It is recognized that greater efficiency in the use of labor and power does not conflict with an advance in better crop practice.

City Worker Has Advantage.

"You may more fully appreciate the disparity between agriculture and industry when we tell you that one authority states that the average agricultural worker takes 2.18 hours to produce that which will exchange in the market for that which the city industrial worker produces in one hour.

"Permit us to recite some of these variations in costs. The variation in the bushels of corn produced by a worker in Iowa varies from about 500 bushels to more than 8,000. The time necessary to raise one acre varies from about four hours to more than forty hours and the cost varies from as low as 35 cents a bushel to more than $1.50 a bushel. Some men make good returns on land valued at $200 an acre, while others make no returns on any valuation and at the same time earn only a pitiful existence. Some of these differences are in the men, but much of it is in their methods and equipment.

"The cost of producing wheat varies from about $3 an acre to more than $7.

"The cost of producing pork varies from 5 cents a pound to more than 20 cents, whereas, the cost of producing butter varies from about 20 cents to more than 60 cents.

"The same variation exists in the cost of producing almost any farm product, even in the same locality on farms of the same relative value as producers.

The two vital factors in the agricultural depression are in the inefficient farmer and the lack of equipment efficiently used.

"Agriculture and manufacturing industry alike are going through a development period in which power and equipment are greatly increasing the production of a worker.

"This new era has introduced many new problems which are new to the farm. The lack of knowledge of these new problems and the lack of the proper direction of agriculture are responsible for many of the ills of our rural population at this time.

Engineering Causes Changes.

"Many of these changes which are being brought about by the use of power and machinery are either purely engineering or have an engineering phase.

"America's pre-eminence in both agriculture and manufacturing is a power and machinery pre-eminence. We might say that the wealth of any industry or nation is represented by its ability to produce and that production by each worker is influenced more by power and machinery efficiently used than by any other factor.

"America, by the use of power and machinery, has multiplied the production ability of the man thirty-five-fold ,whereas England, our closest competitor, has only multiplied the producing ability of the man twenty-four fold. The wealth of the two nations, their wages and their living standards, are roughly in the ratio of 35 to 24.

"The wealth and living standards of the workers in other nations of the world, as compared with those in this country and England, are governed by their ability to multiply the productive power of the worker through the use of power and machinery, which ranges from twenty-two times one man power in Canada to one and two-tenths in China.

American Agriculture Best.

"American agriculture, as a whole, is the most efficient agriculture in all the world because it is the best equipped. A study of the relation between power and income shows that the income per worker has increased in almost direct proportion to the increase of use of power. In 1909 there was 2.15 horsepower per industrial worker and the value fo his product was $3,125 and the laborer's share of this production was $791. In 1924 the power per worker ha dincreased to 3.77 horsepower and the value of the product to $7,175 and the laborer's share was $1,848.

"The agricultural worker has also increased his earnings by the use of power of equipment, but not so much as has the worker in manufacturing industry, his increase being only 180 per cent since 1850 and only 29 per cent since 1909.

"Let us give an illustration: In 1870 the United States production of corn was approximately 1,000,000,000 bushels and the output of steel was about 1,000,000 tons. In 1925 the corn production was about 3,000,000,000 bushels, whereas the steel output was 70,000,000. Steel increased seventy-fold, whereas corn only increased three-fold.

Dairy Co-operatives Successful.

"Agriculture has not seen fit to follow the product of the farm to the ultimate consumer, except in a few branches, and those branches which have made contact between the producer and the consumer have shown marked prosperity over those branches which have not. The dairy and fruit gardening co-operatives have on the whole been successful, oftentimes with poor management because the product passed from a certain producer through a fixed channel to a regular consumer.

"Many of our transportation charges are preferential on raw material rather than on finished products. Freight tariffs should be so constructed as to tend to promote the processing of raw material close to the place where the raw material is produced.

Engineering Analysis Urged.

"There should be made at once an engineering analysis of the industry of agriculture in order that the various component parts of the industry and its relationship with other parts be made known and better understood. This analysis should be made by engineers who are a part of agriculture in conjunction with agricultural producer, the agricultural machinery industry, the processer of agricultural products, the extension departments of our colleges, the United States Department of Agriculture, agricultural finance and any other agency which depends upon the prosperity of agriculture for its prosperity."

The society in closing offered its full services to the President and said it had the co-operation of Secretaries Hoover, Work and Jardine, as well as the United States Chamber of Commerce, the American Engineering Council, the American Bankers' Association and other roganizations.

Great Efficiency Meeting for S. T. A.

AN unusually interesting and instructive program for the semi-annual meeting of the Southern Textile Association, to be held in Birmingham, Ala., on October 28 and 29, has been announced by Secretary Gregg. The theme of the meeting will be "Greater Efficiency" and the topics to be discussed promise a meeting of much value.

It will be recalled that the semi-annual meeting of the Association in Greenville last year was one of the most interesting the association has ever held and it is believed that the coming meeting will be of equal interest.

Indications point to a large attendance at the Birmingham meeting. Special efforts are being made to have the superintendents and overseers from the mills in Alabama and Mississippi present and it is expected that they will be organized into an Alabama-Mississippi Division of the Association.

The full program of the meeting, which is to be held at the Tutwiler Hotel is as follows:

Program.

Invocation: Dr. J. M. Broady, Sixth Avenue Presbyterian Church, Birmingham, Ala.

Address of Welcome: Donald Comer, vice-president, Avondale Mills, Birmingham, Ala.

Response to Address of Welcome: L. L. Brown, superintendent, Clifton Manufacturing Company, Clifton, S. C.; also chairman board of governors, Southern Textile Association.

Address: "Effects of Labor Turn Over on Efficient Operation," F. Gordon Cobb, vice-president and general manager, the Lancaster Cotton Mills, Lancaster, S. C.; also executive secretary, Southern Textil Association.

Address: "Regulating Weights from Moisture Regain in Cotton," W. A. L. Sibiey, superintendent, Whitney Manufacturing Company, Whitney, S. C.

Address: "Well Kept Machinery and Its Relation to Efficient Operation," O. G. Murphy, superintendent, Shawmut Mill Division, West Point Manufacturing Company, Shawmut, Ala.

Report from Section Chairmen:

Carders' Division: J. O. Corn, superintendent, Hampton Department, Pacific Mills, Columbia, S. C.

Spinners' Division: Carl R. Harris, assistant superintendent, Inman Mills, Inman, S. C.

Weavers' Division: L. L. Brown, superintendent, Clifton Manufacturing Company, Clifton, S. C.

Master Mechanics' Division: H. H. Iler, plant engineer, Newberry Cotton Mills, Newberry, S. C.

Eastern Carolina Division: T. W. Mullen, superintendent, Rosemary Manufacturing Company, Rosemary, N. C.

Reports from Texas Textile Association—affiliated with the Southern Textile Association.

Friday Afternoon.

Trip through the Birmingham Steel Mills.

Friday Night.

Banquet: Tutwiler Hotel.

Music: Avondale Mill Band. (This band was the one selected to lead the parade when President Harding visited Birmingham. When the parade ended the President was so well pleased with their music that he shook hands with everyone in the band and presented them with an autographed photograph of himself.

Address: Dr. Frank Willis Barnett, Birmingham, Ala.

Saturday Morning.

9:30 o'clock.

Address: "Observations in European Mills," David Clark, Editor, Southern Textile Bulletin, Charlotte, N. C.

Address: "Cost Accounting from the Superintendents' Point of View," George W. Duncan, cost engineer, Cotton Textile Institute, New York City.

Address: "Advantages of High Speed Spooling and Warping," Fred L. Stili, superintendent, Victor Plant, Victor-Monaghan Co., Greer, S. C.

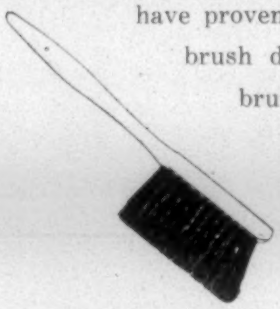
Address: "Advantages of High Speed Winding and High Speed Warping," J. H. Howarth, assistant superintendent, Lanett Mill Division, West Point Manufacturing Company, Lanett, Ala.

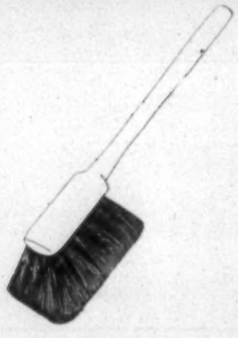
Business meeting.

Note. There will be a football game on Saturday afternoon, October 29th, between Auburn and Howard College.

Brushes You Ought to Have!

Here is our comber duster No. 163. Dozens of mills have proven the efficiency of this new brush during the last year. The brush part is made of stiff quality black horse hair. A. B. C. standard quality.





At the right is our No. 164 loom duster. The brush part is of a mixture of grey horse hair. Ends and sides well flared, oval bottom. Knots placed with our new improved cement.

These brushes bear the famous A. B. C. guarantee of satisfactory service. Write for descriptive folder and price lists.

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1—Providence Speeder, 7x3½, 120 spindles.
3—Lowell Speeders, 7x3½, 128 spindles.
10—H. & B. Spinning Frames, 3" gauge.
2—Saco & Pettee Spinning Frames.
8—Whitin Spinning Frames.
2—Whitin and 3 E. & B. Spoolers, 4x6.
6—Ball Warpers.
4—Draper Twisters, 2½" rings.
2—Whitin Twisters, 3½" rings, 5" gauge.
8—Universal No. 90 Quillers.
8—Draper Looms, 36" with Dobbies.

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—T—
Takamine Laboratories, Inc. —
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—U—
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—V—
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Starting Control of Electric Motors

(Continued from Page 18)

The primary resistance method uses a resistor to reduce the voltage applied to the terminals of the primary windings. The resistance is cut out as the motor accelerates.

The compensator will start a motor under a given condition of motor starting current, terminal voltage, and starting torque with materially less current taken from the line than when a primary-resistance starter, designed to give the same motor characteristics, is used. To illustrate: To obtain full-load torque on a 20 h. p. motir, the line current whes starting by means of a compensator is approximately 260 per cent of the full-load current. With a balanced-resistance starter (resistance in all three legs), the corresponding value of current is 380 per cent and with an unbalanced resistance starter (resistance in only two legs), this curent value is 475 per cent of full-load current.

From the foregoing comparisons, it is obvious that the compensator is to be preferred to the resistance-type starter for such applications where the starting conditions are severe or the accelerating period long.

There are some drives in the textile mill where the rotating members to be accelerated have a relatively high inertia. The napper and the card illustrate this type of load very well. The problem of selecting a motor of suitable characteristics as well as a proper control to take full advantage of these characteristics requires much more care in such cases. Whether the motor is arranged to drive the machine through gears or by chain drive, the sudden application of a high starting torque puts an excessive mechanical strain on all gears, shafting, and other transmission devices. It also takes up any accumulated slack in the gear trains, chain mechanism, etc., with sufficient jolt to sooner or later cause sometning to break.

On the other hand, if the motor starting torque is restricted to a relatively low value by means of the starting device, the load can only be accelerated to a small percentage of its normal full speed. The result is that when the accelerating contractor is closed or the compensator shifted from the partial-voltage to its full-voltage position, a similar jolt occurs that is very often just as objectionable as when starting the same load with a motor of less inherent starting torque on full voltage.

A satisfactory acceleration may be accomplished in either of two ways: (1) by the use of a slip-ring motor. and (2) by the use of a squirrel-cage motor with suitable starting characteristics and a starting device that will permit this torque to be applied gradually.

The slip ring motor with its more elaborate control is more expensive. takes more room, is somewhat more complicated, is usually less efficient, and is a greater fire hazard than a squirrel-cage motor of equal rating. The conditions under which the motor must operate sometimes give one or more of these features considerable importance. A logical choice would, therefore, favor the squirrel-cage motor designed for high starting torque an dequipped with a starting device that will cut out the resistance in several successive steps in such a sequence as to provide the necessary starting effort required to bring the high inertia mass up to speed during a period consistent with smooth acceleration and without undue shock. The cotton card is operated very satisfactorily by a special design of general-purpose motor which provides the unusually high starting torque required. Since the card motor is quite small, it is started on full voltage by means of either a magnetic switch or a hand operated switch.

The wooden card drive especially where the machine involves two sections has been solved very nicely by the use of a high-torque squirrel-cage motor started by a primary resistance starter having six steps.

Of the textile mill drives not covered thus far we might briefly refer to the winders, warpers, and slashers as a class of machines in which the torque demands are very reasonable and well within the characteristics of a standard general-purpose motor. In these applications a sudden jerky start will increase breakage and other similar annoyance that tends to slow up production. A single-step reduced-voltage starter of either resistance or compensator type will ordinarily take care of this condition quite satisfactorily.

In some installations of warpers. a slip-ring motor and special drum control have been used, providing a slow, intermediate, and full speed. By this arrangement it is possible to "inch" the machine and start up very gradually.

The loom motor is normally started without its load, and the matter of starting torque in the case of individual drive is not a particularly important feature. It is customary to start the loom motor on full voltage through a manually operated switch. For this purpose three types of switch have been used; viz.; (1) A snap switch with ordinary fuses for severe over load or short-circuit protection. While many thousand looms are equipped in this manner, the snap switch is seldom used at the present time for this class of service. (2) A manually operated switch equipped with thermal cutouts having a time-temperature characteristic approaching that of the motor. With this arrangement a large magnetic switch is frequently wired in so as to become a group switch for a bank of say 20 looms. The magnetic switch provides the undervoltage protection. (3) A manually operated switch with a magnetic holding circuit. With this switch overload and undervoltage protection is provided for each individual looms.

Washington.—Despite a decline in prices, the value of exports for the first six months of 1927 was the, largest since 1921, as shown in a bulletin issued by the Foreign Commerce Department of the Chamber of Commerce.

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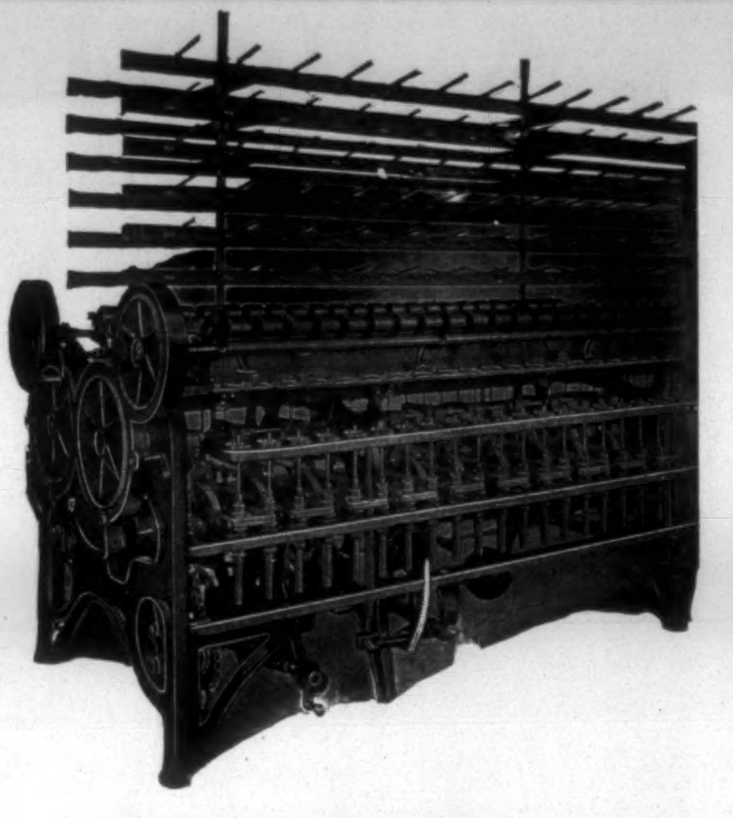

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Safeguards for Textile Machinery

(Continued from Page 16)

four different points, namely the compressor roll, compressor chain weight, compressor gear and drive belt assembly, the safety department decided to devise a suitable method of preventing an accident at each of the points involved, notwithstanding the fact that the experience at each plant had failed to show an accident ever having occurred on any of its machines. Information was available, however, serious accidents resulting in crushed and broken arms and legs had occurred in other plants. In one case a fatality resulted. As far as we were able to learn no method of guarding had previously been attempted. Considerable time was devoted to devising a feasible guard for the greater hazard, that is, the liability of compressor roll carrying a pressure of some 2,500 pounds. The other three hazards presented little difficulty, and were rectified by recognized standard guarding. Not only should the guard serve as a prevention of accidents, but production must not be retarded. After considerable experimenting, a guard was made and installed at one of the plants and later at the other two. They have ben very satisfactory, do not in any way interfere with production, the operator appreciates its values as a means to his protection and the cost of manufacture is nominal.

In detail the guard consists of a wooden frame 66 inches in length, 19 inches in width, made of 1-2 inch by 2-inch pine stock covered with 1-2-inch mech galvanized iron wire. It is attached by three collar hinges to a 1-inch cold rolled steel rod fastened to the side of the frame on which it may be thrown back at any time should be the beam need attention or is removed. The base of the guard is faced on the under side with 5-8-inch half round cold rolled steel and rests on the yarn as the beam revolves.

Almost every experienced weaver realizes the seriousness of accidents arising from flying shuttles. Consult any one of our weavers and they will invariably tell you that a flying shuttle is one thing connected with the operation of a loom with which they hope they will never come in contact. A flying shuttle may be due to any one of a number of mechanical cause—a loose or broken picker stick, a loose rocker shaft, a loose picker stick bolt, etc. Various guards have been devised to overcome this hazard of the textile industry, and although today most looms are equipped with some type of shuttle guard, in many cases srve only to divert the course of the shuttle in its flight to a direction where the danger of injury to an employe is the least.

Our plants were no exception to this rule. The larger looms were equipped with guards of heavy wire in two halves screwed to the top of the reed cap. Investigation of the many and continued accidents to our employes showed the guards to be unsubstantial and easily bent or moved out of shape and position when struck by the shuttle. Our line of work demands a shuttle weighing about a pound and a half and 19 inches in length. The severity of an injury resulting from the blow of a shuttle of this size may readily be visioned. We also found that although the shuttle occasionally left the loom before striking the yarn, as well as at any place through the yarn, it usually left on the managzine end. We needed a guard that would remain stationary at all times, and after some experimenting we have devised one that not only meets this requirement, but has solved the fllying hazard. Our present guards are made of ¾-inch by ⅛-inch steel, 12 in number machine screwed to either the top or front side of the reed cap, about 7½ inches apart with the exception of the first three.

The first prong, so-called, is fastened to the reed cap just above the mouth piece of the box on the magazine end; the second just inside the filler motion about 2 inches to 2½ inches distant from the first, while the third prong is far enough away from the second to allow sufficient room for the temple and filler cutter. This arrangement makes it impossible for the shuttle to leave the shed when in motion. To insert or withdraw a shuttle but one way is possible, namely, to slide the same under the second prong and withdraw between the second and third.

If it is necessary at any time to change the width of the fabric, our filler motion remains stationary and the change is made on the off side of the loom. The temple is moved to position between the next two prongs.

Although designed primarily for coarse work, we believe that this type of guard should be adaptable for finer work on any loom having a reed cap, the number of prongs and their distance apart depending, of course, on the length of the shuttle. No better proof of its effectiveness can be asked for than our frequency reduction in accidents from flying shuttles since its inception. We have never had a shuttle leave the loom since the installation of this type of guard ,and we are fully convinced that it never can.

In conclusion I will mention one other development adopted as a further safeguard against accidents in our plants. It is not a guard in the strict sense of the word, yet it might be considered, as a prevention against carelessness or inattention. Occasionally an operator will remove a guard while the machine is in motion, regardless of all rules or instructions to the contrary. On many of these guards we have painted a letter "D" in red as a cautionary measure. Should an operator attempt to lift or remove a guard or cover, the letter appears prominently before him as a warning that danger is hidden beneath; that the frame should be stopped before he proceeds. Posted on the bulletin boards and about the room were different bulletins, some illustrated, advising the employes that the "D" stands for danger. These were removed as soon as it was believed all were familiar with the meaning and object of the letters. Possible results of the application of this idea may be realized by anybody interested in safety work. In the application, however, care has been used lest the "Ds" appear too frequently, and the employe gain the impression that nothing about him is safe. In this case the lettering defeats the purpose for which it is applied.

All the safety devices which have been mentioned were devised to rectify hazards pertinent to the textile industry, hazards which have or might arise in our plants. Some of them might be used with slight changes in design in other lines of industry. Their strongest points are that they are simple and inexpensive, two things which appeal to both manufacturer and official alike, and they can and have prevented accidents.

Mercier on Institute Staff

Alfred A. Mercier, who has been engaged for seven years in textile research with the Bureau of Standards, has just joined the staff of the Cotton-Textile Institute, Inc., as research associate.

Although he is leaving the government service, Mr. Mercier will continue to work chiefly through the Bureau of Standards in Washington, making studies of specific problems in research which may be disclosed by activities of the New Uses Section of the Institute.

In connection with these studies, he will have the use of the experimental cotton mill now maintained by the bureau primarily for the benefit of the government. The mill is on a small scale but is complete in every detail from breaker to loom. It is equipped to assist manufacturers who may wish to study improved processes or correct their mechanical equipment without a prolonged and expensive suspension of their plants; and also to provide a means for those desiring to experiment with new ideas.

One of the principal objects of Mr. Mercier's studies will be to facilitate a larger consumption of cotton textiles by providing additional scientific knowledge as to specific fabrics and the treatment which will make them best adapted for particular purposes. Work along these lines will be for the benefit of cotton textiles used by large industrial consumers as well as for finer goods used for apparel and househol dpurposes.

Mr. Mercier has had practical mill experience and has collaborated in the preparation of several technical reports concerning the cotton textile industry published by the Bureau of Standards.

Textile Merchants Comment on Tariff

Spencer Turner, president of the Association of Cotton Textile Merchants of New York. sent recently to President Coolidge the following letter referring to the present tariff discussion between the United States and France, and assuring the President that American manufacturers of cotton fabrics are in a better position today than ever before to make the American consumer entirely independent of foreign sources of supply:

"Dear Mr. President:

"It has occurred to the members of the executive committee of the Association of Cotton Textile Merchants of New York that in connection with the current discussion of tariff relations between the United States and France you might be interested in an expression of our views as distributors for a very large corporation of the cotton textile mills throughout the country.

"The American cotton textile industry was never better equipped than it is today to manufacture and distribute cotton fabrics in both the quality and quantity desired by the American public. This is true of fine fabrics for wearing apparel. of materials for domestic and home uses and of coarser fabrics for industrial purposes. As a matter of fact in every department of the industry American cotton mills are so improving their processes, patterns and styling facilities as to make the American consumer of cotton textiles entirely independent of foreign sources of supply.

"We are in a position to assure you that if the supply of cotton fabrics from abroad should for any reason be curtailed the American users of these fabrics would suffer no inconvenience whatsoever. From our knowledge of present manufacturing and distributing facilities in the American cotton textile industry we are confident that American mills can provide these products in such variety, style and volume as well as of such excellence of quality as to meet any and all requirements.

"Very truly yours,
"SPENCER TURNER,
"President."

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The National Aniline and Chemical Company, Inc., announces the introduction of National Erie Fast Brown G2R Conc., yielding redder and brighter tones than National Erie Fast Brown GR Its properties are very similar to the latter product, but it has the distinct advantage of better fastness to storing and adaptability for dyeing in the presence of copper.

National Erie Fast Brown G2R Conc. possesses good solubility and level dyeing properties, and is recommended for use alone or in combination for the production of tans, khakis and browns. Aftertreatment with chrome and copper renders the shade somewhat duller but increases the fastness to washing and light.

Predict Tire Sales Will Be 45,000,000 This Year.

P. W. Litchfield, president of the Goodyear Tire and Rubber Co., is quoted as predicting that sales of tires this year will total 45,000,000, as compared with 40,000.000 in 1926 and 37,000,000 in 1925. He says that despite unusual weather conditions, the car-owning public is buying more automobile tires than in any year of the company's history.

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Eastern Carolina Meeting

(Continued from Page 14)

ton, strict and low middling on 20s filling and 29s warp and that he was troubled by the irregularity in staple. He would prefer local cotton.

Mr. Cates then stated that L. R. Gilbert, president of the Southern Textile Association, was "making the best 30s yarn you ever saw from half-inch cotton."

Mr. Gilbert smilingly explained that he was making 30s yarn from local cotton "without much regard for length of staple." He said his mill had excess spinning capacity and that by running much slower than usual speed he was making good yarns from his cotton. "What makes a mill run good?" Mr. Gilbert asked. "That is something few of us know. Who can tell us? That is a question all of us should study until we know."

"The average carder and spinner says, "Give me good 1 3-16-inch cotton and I can make you the best 20s yarn you ever saw." Of course this is an ideal situation that few mill men ever found themselves in, he added, but it is the attitude that many of them have. The question is to make good yarn out of the cotton that is given them.

A member wanted to know what front roll speed Mr. Gilbert was running to make "those good 30s out of half-inch cotton."

"We have more spinning than we need and we simply cut down our speed to where the cotton would run, Mr. Gilbert answered.

Mr. Cates said that many mill men had to spin yarns from poorer cotton than they should. For instance, he stated, how can we spin finer than 20s from ⅞-inch cotton and get production. If we run 24s to 26s from ⅞ to inch cotton, we have trouble with the ⅞. Last year the cotton was the worst in many years, he said. This year's crop is much better.

It was interesting to note that several members thought that the cotton crop this year, as far as spinning quality is concerned, was the best in many years.

Mr. Moore asked how he could get breaking strength from poor cotton. How can we get breaking strength and production on 20s from ⅞-inch staple, he asked. There were no answers.

Mr. Mullen stated that the general opinion of the meeting was that Eastern North Carolina cotton needed only further slight improvement to suit most of the mills in that section. He then asked if good cotton, 1-inch staple, would make 30s yarn.

Mr. Gilbert stated that Mr. Bunn, superintendent of the Henderson Cotton Mills, Henderson, N. C., was making good 30s from inch cotton of good grade, the cotton being locally grown.

Mr. Blackwood, of the Eastern Mills, Selma, reported that he was spinning 40s from inch cotton and the spinners were running 15 sides.

Secretary Hill said that in a mill where only a few numbers of yarn were being run it was much easier to run the poorer and short cottons than in a mill making a wide range of numbers. He said that the range of numbers often determined the length of the cotton necessary.

Mr. Cates asked if three processes of picking was better than two when making 20s yarn.

Mr. Gilbert reported making 26s to 30s with two processes of picking and getting good results.

Mr. Bunn stated he used two processes. He has bale breakers and vertical opener and on 18s to 30s gets good results with two processes of picking.

Mr. Reynolds stated that it paid to cut down on the intermediate processes and slow down on the finishing processes by 50 per cent. He uses two processes of picking.

Mr. Cates asked if it improved spinning when more twist was added to fine roving.

A member answered yes.

Mr. Vick stated that the question of twist involved more than most men realized and that a more thorough knowledge of twist was needed.

A member said that uniform staple cotton would run well with less twist. Spinners learn by experience where the twist should be, he stated. The yarn should not break back nor "come through whole." Experience shows that less twist is better if yarn does not break back. Eastern Carolina usually takes excess twist, he said. He had found that standard twist would not do, especially from slubber to spinning frame.

Mr. Reynolds said that twist is not studied sufficiently. Why do we use twist, he asked. It gives strength, consolidates the fibres and gives volume to draw evenly by the rollers in the succeeding processes. Excess twist is best, he said, because it gives the rollers a chance to grasp the fibres and draw it evenly. Use more twist, provided you can use it and make it draw well, he advised.

Prof. Hilton reported on several tests the experimental laboratory of the Textile School is handling.

This concluded the discussion.

Dr. Winters showed on the blackboard a number of spinning tests that had been made on North Carolina and Texas cotton. Using the same twist multiple, the breaking strength of yarn made from the NoNrth Carolina cotton was somewhat higher than that of Texas cotton.

The Division accepted an invitation to hold the spring meeting at the Kinston Cotton Mills, Kinston, N. C., the date to be fixed later.

Upon invitation from Dean Nelson and Prof. Hilton, of the Textile School, it was voted that the Division would hold each of the Fall meetings at the Textile School.

Among Those Present.

Among those who attended the meeting were the following:

Aiken, B. F., Carder, Erwin Mill No. 5, Erwin, N. C.
Allen, D. P., Overseer Mill No. 2, Rosemary, N. C.
Allen, R. D., Rosemary, N. C.
Batton, J. B., Spinner, Rosemary Mill No. 2, Rosemary, N. C.

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Browne, O. H., Raleigh, N. C.
Brown, R. B., Section Hand, Mill No. 1, Goldsboro, N. C.
Brietz, Geo. F., Supt., Selma Cotton Mills, Selma, N. C.
Bunn, J. H., Supt., Henderson Cotton Mill, Henderson, N. C.
Burns, D. F., Gen. Supt., Durham Hosiery Mill, urham, N. C.
Byrd, G. B., Supt., Caraleigh Mills, Raleigh, N. C.
Cates, C. C., O-Twisting, Edenton Cotton Mill, Edenton, N. C.
Cates, J. W., Supt., Edenton Cotton Mills, Edenton, N. C.
Cooper, J. W., Supt., Harriet Mills Nos. 2 and 3, Henderson, N. C.
Cozart, C. S., O-Twisting, Rocky Mount Mills, Rocky Mount, N. C.
Craven, F. L., Carder, Borden Mfg. Co., Goldsboro, N. C.
Creech, J. O., Overseer Spinning, Mobile Mill, Selma, N. C.
Crouch, L. B., Overseer Spinning, Rosemary Mfg. Co., Rosemary, N. C.
Culbreth, H. W., O-Spinning, Borden Mfg. Co., Goldsboro, N. C.
Culpepper, O. G., Salesman, Parks-Cramer Co., Charlotte, N. C.
Davis, W. B., O-Finishing, Rocky Mount Mills, Rocky Mount, N. C.
Dickenson, J. F., Henderson, N. C.
Dickinson, F., Salesman, H. & B. American Machine Co.; Pawtucket, R. I.
Garner, J. T., O-Spinning Mill No. 3, Rosemary, N. C.
Gilbert, L. R., Treas. and Mgr., Audrey Spinning Mills, Inc., Weldon, N. C.
Gregg, J. M., Sec. and Treas., Southern Textile Assn., Charlotte, N. C.
Gurley, G. M., Carder, Rosemary Mfg. Co., Rosemary, N. C.
Haley, J. S., O-Carding, Caswell Cotton Mills, Inc., Kinston, N. C.
Hart, T. R., Asso. Prof. Textile School, N. C. State College, Raleigh, N. C.
Hill, D. H., Jr., Associate Editor, Southern Textile Bulletin, Charlotte, N. C.
Hill, N. B., Supt., Caswell Cotton Mill, Kinston, N. C.
Hilton, J. T., Prof. N. C. State College, Raleigh, N. C.
Huneycutt, J. T., Supt., Smithfield Mills, Inc., Smithfield, N. C.
Hughes, R. A., O-Spinning, Erwin Mill No. 5, Erwin, N. C.
Humphries, John E., Salesman, Dary Ring Traveler Co., Greenville, S.C.
Jones, D. C., Roanoke Rapids, N. C.
Kirk, J. E., O-Carding, Caraleigh Mills, Raleigh, N. C.
Knight, D. W., Supt., Rocky Mount Mills, Rocky Mount, N. C.
Lamb, John, Section Hand, Borden Mfg. Co., Goldsboro, N. C.
Lawson, C. H., O-Spinning, Patterson Mill, Rsoemary, N. C.
Lilly, J. M., Dyer, Durham Cotton Mfg. Co., Durham, N. C.
McAlister, A. B., Carder, Patterson Mill, Roanoke Rapids, N. C.
McGee, J. E., Carder and Spinner, Rosemary Mfg. Co., Rosemary, N. C.
Moon, G. E., Supt., J. M. Odell Mfg. Co., Bynum, N. C.
Morris, C. O., O-Carding, Selma Cotton Mill, Selma, N. C.
Moss, A. B., Jr., Office Asst., Caraleigh Mills, Raleigh, N. C.
Mullen, T. W., Supt., Rosemary Mfg. Co., Rosemary, N. C.
Nelson, Thomas, Dean of Textiles, N. C. State College, Raleigh, N. C.
Pegram, T. C., Supt., Leak Mfg. Co., Rockingham, N. C.
Permenter, J. M., O-Spinning, Caraleigh Mills Co., Raleigh, N. C.
Philip, Robert W., Associate Editor, Cotton, Atlanta, Ga.
Phillips, W. C., O-Winding, Caswell Cotton Mill, Kinston, N. C.
Quinn, Peter T., Draper Corp., Atlanta, Ga.
Ratcliffe, F. E., O-Carding, Durham Cotton Mfg. Co., E. Durham, N. C.
Reynolds, W. G., Selma, N. C.
Rogers, H. S., Carder, Edenton Mill, Edenton, N. C.
Ross, A. B., Raleigh, N. C.
Shinn, W. E., Instructor Textiles, Textile School, Raleigh, N. C.
Sloan, A. H., Carder and Spinner, Durham Hosiery Mill, Durham, N. C.
Stephens, W. A., Spinner, Durham Cotton Mfg. Co., Durham, N. C.
Strickland, O. T., O-Carding, Rocky Mount Mill, Rocky Mount, N. C.
Sutton, G. C., Spinner, Edenton Cotton Mill, Edenton, N. C.
Taylor, C. D., Sou. Agent, National Ring Traveler Co., Gaffney, S. C.
Taylor, L. E., Rep., National Ring Traveler Co., Charlotte, N. C.
Taylor, W. C., Greensboro, N. C.
Terry, J. S., Henderson, N. C.
Terry, F. S., Salesman, Wm. C. Robinson & Son Co., Baltimore, Md.
Thomason, C. B., Traveling Salesman, Charlotte, N. C.
Thompson, L. W., Charlotte, N. C.
Thompson, J. M., Carder, Oxford Cotton Mill, Oxford, N. C.
Vernon, J. E., Overseer, Harriett Mill No. 2, Henderson, N. C.
Vick, M. R., O-Carding No. 1, Rosemary Mfg. Co., Rosemary, N. C.
Wilson, W. O., Overseer, Oxford Cotton Mill, Oxford, N. C.
Winters, R. E., Raleigh, N. C.

$10,000,000 Rayon Plant for DuPont

Richmond, Va.—The du Pont Rayon Company, of Wilmington, Del., and allied interests will build an artificial silk plan tcosting several million dollars and employing between 2,000 and 3,000 men and women on the Petersburg Turnpike, about three miles from Richmond.

Work on the project will start within sixty days, it is believed, and it is planned to have the plant in operation within a year. Officials of the du Pont interests have consented to publication of their plans.

Land for the plant already has been acquired, the sale having been confirmed in Chesterfield Circuit Court. There are 517 acres in the tract, known as the Ampthill Farm, on the Petersburg Turnpike and Atlantic Coast Line Railroad, about three miles from the city limits.

Examination of title to the property is now under way, and will be completed as quickly as possible, it was stated. From ten to 30 days is expected to be required for this work and as soon as the du Ponts are assured the land is clear they will begin construction. Every effort will be made to push construction and it is believed the plant will be in actual operation withi na year.

William H. Hayward President
Edward M. Johnson Vice President & Treas.
Joseph A. Bryant Vice President

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Water Power Nearby Contributes To Supremacy Of Spartanburg County

(By James .H. Carlisle.)

SPARTANBURG'S supremacy in the manufacturing world is due more to its water power than to any other one cause.

Take any good map of Spartanburg county and you will see that, between Broad river on the northeastern boundry to the Enoree river on the southwestern boundry, there are almost innumerable river and streams, all running parallel in a southeasterly direction.

As most of these streams have their sources in or near the foothills of the Blue Ridge Mountains, their descent must be very rapid.

Broad rixer, the largest river that touches our county, has its rise in the mountains of North Carolina. It enters our States through that most beautiful of all the gaps—Hickory Nut. It is in this gap that Chimney Rock, with its beautiful falls of the same name, is located. The name Broad explains itself.

Broad River Navigable.

It is hard for people of our day to realize that, about 100 years ago, Broad river was navigable from the ocean to a little below the Union line. In Mills' map of 1826, we find this comment on what is now Clifton No. 3 on Pacolet river: "This is the upper end of canoe navigation."

From Mills' statistics of 1826, the following interesting account of the trough of Pacolet river, where now stands Pacolet Mills:

"There are several beautiful falls on these rivers. Those of Pacolet are a great curiosity. The waters are confined within a narrow space in the rock, which from its resemblance, is called the trough: this forms the whole bed of the river here. The length of it is about 100 yards, and the fall of the water about 15 feet in that distance. At the upper end of the trough it is only 10 feet wide and 16 feet deep. As it expands in width, it lessens in depth to four or five feet. Although the river here is from 80 to 100 yards wide, its whole current, at low water, is sometimes confined to the narrow limits of this trough. The velocity of the waters is so great that it is with difficulty the shad ascend it. Notwithstanding their rapidity, several boats have passed with safety through the trough, and after descending to the Union line, four miles below, taken in their freight and proceeded to Charleston, S. C.

"These falls furnish admirable mill seats for manufacturing, forges, etc.; but nothing of this kind has yet been attempted.

"The mountain schools are another natural curiosity. These are on the Enoree river; the waters rush down a precipice 76 feet high in a distance of only 24 chains, and form an interesting spectacle."

These last mentioned shoals are where the Enoree Manufacturing Company has the factory.

The Pacolet River.

This river, in the upper part of the county, is composed of two forks, the North and South. Both of these rise in the foothills of the mountains. The northern fork flows near the foot of Tryon Mountain.

It is upon this river that some of our largest and oldest manufacturing plants are located. The Clifton Nos. 1, 2 and 3, and also the Pacolet Nos. 1 and 2.

Lawson Fork.

One of the main tributaries of the Pacolet river is Lawson's Fork, or Thompson creek. It now is known by either name. This creek comes within the city limits. This creek has the oldest mill for the manufacture of cotton goods in the county located on its banks, Glendale Cotton Mills. This was originally Bivingsville, named after its founder, Mr. Bivings. It also has two other mills located on it, Whitney and Drayton Mills.

Fair Forest.

This is another tributary that passes through the city limits on the western side.

The name, Fair Forest, according to Dr. Landrum, was given to the region by Lord Cornwallis, who on seeing the magnificent trees spread out before him, cried out: "Behold the fair forest." This stream that flows through this region took its name from this incident.

My mother told me of this incident that occurred soon after she came here to live: "I was riding through the woods, when I saw a boy with a fine string of fish. I said, 'Where did you get those fish?' His reply was, 'In the Forest.' And I wondered how he caught them in the forest until I found out the stream was called the Fair Forest."

This stream has two cotton mills on its banks, Arcadia and Arkwright.

The Tygers.

The other three largest tributaries are the North, Middle and South Tygers. Twenty miles above their junction, these three streams are scarcely three miles apart; and the two principal branches are only one mile apart. This is a remarkable feature of these waters.

I expect these rivers received their names from a tiger either being killed on their banks, or a tiger was last seen on their wooded slopes that bordered these streams.

There has been established on one of these rivers one of the most successful manufactories of cotton in the county. This was originally Tucapau Mills, but was bought out by some Northern capitalists and the name changed to Lyman. No one at all familiar with the history of our county can read about the Tyger rivers without at once thinking about the Moores, Andersons, MMeanses, Snoddys, Coans and a host of other Scotch-Irish Presbyterians, that came to this county before the Revolutionary war, farmed and made their handsome homes on the beautiful hills that rose from these rivers, and made their living from the bountiful crops that grew on their productive bottom land.

Another large river that borders this county on the south and west is Enoree.

Spartanburg is on a water shed between Lawson Fork and the Fair Forest.

Thus all the water flowing on the east side of North Church street flows into the branch that circles around the college campus, thence into Chinquapin creek, from there to Lawson Fork and from there to the Pacolet river, and from there to the Broad, while water falling on MMagnolia street flows into the branch that divides the public square from HambuHrg, from thence into Fair Forest, and from there into the Pacolet, and from there into the Broad.

The water falling on East Main as far as to Pine street on the south side runs into Kirby creek, thence into Fair Forest, while on the north side it runs into Chinquapin.

Now let's follow the course of a drop of water that falls say on the Frank Evans high school. It runs into Kirby branch, from there it flows into the Fair Forest, thence into Pacolet river, thence into Broad river, then Broad and the Saluda river unite at Columbia and form the Congaree, then the Congaree joins the Wateree and make the Santee and the Santee flows into the ocean.—Spartanburg Herald.

Texas Association Meets

Fort Worth, Tex.—Sixty-five per cent of the chambray used in Texas is made by penitentiary labor in of C. R. Miller, president of the Alabama, according to a statement Texas Cotton Manufacturers' Association, which met in a quarterly session at the Chamber of Commerce here.

This statement was made as Miller introduced U. S. Senator Earl Mayfield, whom he said had been of untold assistance in the legislative measures that the Texas Association had been interested in, in both State and National meetings.

The Senator addressed the only open session of the meeting at a luncheon at the Fort Worth Club, when the Texas Cotton Manufacturers' Association entertained representatives of the Texas Textile Association and the Texas Garment Makers' Association, together with merchants and jobbers.

The subject of the address was scientific industrial achievements of the Southern States, beginning prior to the Civil War.

Sees Big Southern Mill Growth.

He prophesied that in a few years every bale of cotton raised in Texas would be made locally into fabric of some quality, and the present custom of raw materials being shipped out of the State to be made into cloth and garments and shipped back for some consumption would be a thing of the past.

The fact that Texas now owns and operates 26 cotton mills with the other Southern States developing the industry for the consumption of the baled cotton, would make the South the leader in this industry, he said. He quoted a report on the spindle industry of February, 1927, as saying that 53½ per cent of the spindles in the United States were in the Southern States, and predicted a revolution in this industry that would cause at least 10,000,000 spindles to be running in Texas within 10 years.

Texas Seen Leading South.

The meeting of the Cotton Manufacturers' Association was purely executive, according to C. R. Miller, and only members of the association were in attendance at the sessions held in the morning and afternoon with the exception of James McDowell, representative of William Iselin & Co., of New York, bankers and selling agents. He is directly interested in the Planters' and Merchants' Mills, of New Braunfels.

McDowell expressed his opinion of Texas, in an interview in most emphatic terms of optimism. "Texas," he said, "will be the home of the textile industry in 10 years. In short, it will be the Massachusetts of the South.

"The sort of materials turned out by the majority of the mills in Texas is a disgrace," h econtinued. "Staple cotton can be grown here as well as the short staple, and should and will be in the next few years."

McDowell said the New Braunfels mill is the only mill in Texas making fine dress fabrics and that every young woman employee under 30 years of age in the mills is a high school graduate.

A. T. Wicher, of Dallas, manager of the Interstate Traffic Association, addressed the executive body on freight rates and transportation, but his speech was not made public.

Merchants Guests.

J. C. Saunders, of the Bonham Cotton Mills, pioneer in the cotton mill industry of Texas, made the response to the talk made by Monnig.

Officers of the association, in addition to Mr. Miller, ase: J. Perry Burrus, Dallas, vice-president; J. C. Phelps, Sherman, second vice-president; W. L. Steele, West, secretary; and Reed Childs, Itasca, assistant secretary.

Members Present.

Members of the association present were:

W. B. Munson, Jr., of Denison Cotton Mills, Denison; J. C. Saunders, Bonham Cotton Mills, onbam; J. C. Phelps, Sherman Mfg. Co., Sherman; C. R. Miller, of the McKinney Cotton Mills, Miller Cotton Mills, Waco, and the Dallas Textile Mills; Walter Hogg, Dallas Cotton Mills; W. L. Steele, Waxahachie Cotton Mills; L. E. Bridgeman, Worth Fabric Mills, Fort Worth; Sidney J. Files, Itasca Cotton Mfg. Co., Itasca; A. L. Smith, Hillsboro Cotton Mills, Hillsboro; W. L. Steele, Brazos Valley Cotton Mills, West; H. K. Stewart, Belton Yarn Mills, Belton; T. A. Adams, South Texas Cotton Mills, Brenham; R. S. Porter, Planters & Merchants Mills, New Braunfels; E. A. Dubose, San Antonia Cotton Mills, San Antonio; J. C. Saunders, Gonzales Cotton Mills, Gonzales & Guadalupe Valley Cotton Mills, Chero; Herbert Jones, Postex Cotton Mills, Post; J. P. Henderson, El Paso Cotton Mills, El Paso; W. A. Mitchell, Houston Textile Mills, Houston; W. L. Steele, Mexia Textile Mills, Mexia.

Costly Factory.

rGeensboro, N. C.—The amount involved in construction of the first unit of the Southern Webbing Company, new manufacturing plant north of the city will exceed $40,000 it is announced.

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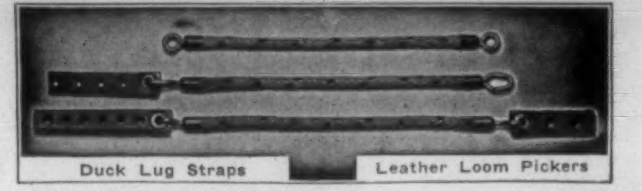

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Erratic Cotton Hurts Trade

"For the first time in a month we failed to sell our current production this week," says a large commission house. "We do not regard this as due to the current level of price, but rather to the unsettlement which has spread from the raw cotton market and which has been in evidence there for the last ten days. Price movements there have been so erratic and confusing, that buyers even though friendly to the market, have thought it the part of wisdom to defer action until more can be learned about the present crop and its prospective value.

"During the early part of the week there was quite a pressure on the print cloth market from offerings by second hands. Several important interests supplied themselves freely from these offerings which were were below the level at which mills cared to operate. During the last twenty-four hours, however, these sources have been pretty well taken care of and print cloth business seems to be coming back to first hands again, mills having agreed to slight concessions in the meantime. There has been some shadecloth buying this week and quite a large volume of business on tobacco cloths which are extremely well sold up.

"We have done a very fair business in 30-inch drills but nothing of great importance in sheetings. In colored goods the best business was in chambrays, romper cloth, and stripes. Our offering of denims to the to end of the year was completely taken up.

"We feel that stocks are comparatively low with bith jobbers and retailers and as we know there are new stocks of staple goods at the mills, but on the contrary, goods are well sold up for several weeks to come, we look for continued good business, waiting only for a steadier cotton market. At the present level, or even somewhat higher, we do not think there will be any trouble in taking care of production well into 1928. Many of our grey goods mills are already sold till December or January and there are few that are not sold four to six weeks ahead. There are only a few lines and these not strictly of staple class, where conditions of this general character do not prevail. We believe that we are some distance away from a price level that would interfere with comparison to any great extent.

"As far as we can make out, very much the same situation exists on staple prints. The printers report a good business with goods wanted for quick shipment, and are following a policy of not accumulating any stock; in consequence, they have maintained the last prices without change."

Cotton vs. Cloth

For a full year past there has been in evidence in even more acute form than usual a purchase problem that frequently adds to the difficulty and responsibility of cotton mill management. There are few industrial activities that do not at times encounter the vagaries of fluctuating price spread between raw and finished materials; but when the former is a great staple which sometimes seems very mercurial—as in the case of cotton in 1926-27—that problem is intensified.

More than one cotton mill treasurer came to what proved a wise conclusion a year ago,—when the South was bewailing so much cotton selling so low,—that cotton futures then spelled opportunity. That has particularly been the case in New Bedford, a mill community which also long since learned the other lesson of preference for finer products and diversification.

But in looking into next year several mill treasurers are apprehensive over their future supply of the staple. They have bought almost no cotton at recent high levels. Some even have been advised by cotton brokers not to buy. They will not contract, therefore, to manufacture goods where they have not the raw material in sight. In the opinion of many, the current high price of cotton constitutes the one weakness in the cloth mills' outlook.

One encouraging fact, say several New Bedford observers, is that the mills are showing a firmer policy with regard to goods prices. During the advancing raw cotton market the mills did not receive as high prices as they should. On certain constructions it is only recently that prices have reached a replacement basis. Now it is felt that the mills have resolved more strongly not to sell their goods at a loss, and prices after advancing strongly in recent weeks have held rather well during the late decline of the raw cotton market. On some constructions future prices have just pulled ahead of spots for the first time in several years.

One of the most important facts in the city's situation, as of course is generally recognized, is its trend away from purely cotton goods to products using silk and rayon. New Bedford is said to have 60 per cent of the fine looms in the country, while two units, Nashawena and Dartmouth, have more fine looms than there are in the entire South.

More and more the mills have been put on manufacture of goods containing real and substitute silk. Some units spend as much for their silk and rayon as for their cotton, and one mill at least has a silk and rayon bill twice as large as its cotton bill. It is estimated that New Bedford consumes one-half of the rayon used by cotton mills throughout the country, and for 1927 the city will consume, it is estimated, between 8,000,000 and 10,000,000 pounds out of total United States production of around 72,000,000 pounds.—Boston News Bureau.

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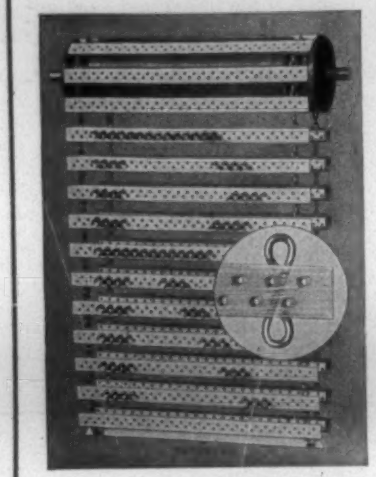

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Managing Director

Tire Fabric Production in New England

Although the South has taken away a goodly part of New England's share in the country's tire fabric production, New England continues to make more of the better and higher priced fabrics, cord and duck, according to the industrial survey recently conducted by the Domestic Commerce Division of the United States Department of Commerce, in co-operation with the New England Council.

Less than 40 per cent of the South's product is of this class but 97 per cent of New England's fabrics is made of cord or duck. Massachusetts in 1923 produced 29 per cent of the country's duck and 42 per cent of its cord fabrics leading all the States of the Union. This State put out 54 per cent of New England's value in fabrics of every kind.

The following table tells the story of the Southward movement of this industry from 1919 to 1923, in per cent of United States total value of tire fabrics:

	'19	'21	'23
Cotton growing States	11	23	34
New England	70	62	51

The concrete results of sustained effort to do away with slack employment periods are clearly shown in this survey. The list of improvements is headed in every case by "continuous maintenance of plant and equipment." The effect has been that there is little or no seasonal fluctuation in the reporting plants and no supplementary production is now necessary.

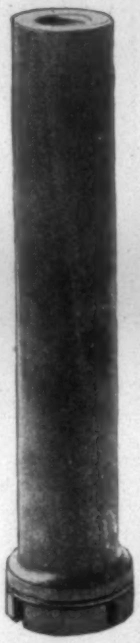
Improvements also have been made in organization and executive control, relations with workers, production control, uniform cost accounting and the prevention of accidents. Such improvements cannot, however, overcome the basic difficulties of the tire fabrics industry.

One manufacturer said that "Massachusetts is out as a manufacture of tire fabrics now used for the next five years anyway—may be forever—and it costs too much money today to change to other products with better prospects.".

Reporting plants average twenty-three years in age. All those over twenty years old have changed their management in the last ten years, the majority in the last three. Reasons for locating and remaining in New England are, in order of importance, labor conditions, accessible raw materials, transportation facilities and special contracts. Branch plants have been established here, in New York State and the South.

Both Egyptian and American cotton are used in manufacture and some concerns use corded and combed yarns, bought partly in England, for their fabrics. Half the companies have some employees in a piece work or other incentive basis, with an average of 63 per cent of workers thus paid in the reporting portion of the industry.

Only a small part of the product is sold in New England and most of it goes to tire makers in Ohio. Most of it is sold direct to the manufacturer.



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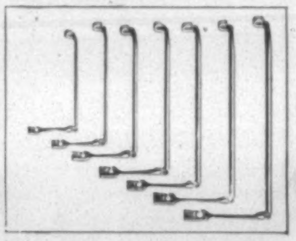

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Grey Goods, Print Cloths, Twills, Sheetings, Pajama Checks, Arcadia Mills, Spartanburg, S. C., Clinton Cotton Mills, Clinton, S. C., Hermitage Cotton Mills, Camden, S. C., Mills Mill, Greenville, S. C., Osage Mfg. Co., Bessemer City, N. C.

Cotton Goods

New York.—With the cotton markets somewhat steadier, there was a revival of buying in cotton goods last week and trade was considerably larger than during the previous week. A considerable number of consumers who have been delaying their purchases because of the erratic cotton market were in the market for substantial quantities. Most mills making print cloths, sheetings and denims and some of the other lines continue sold ahead from four to six weeks. Trading in wash goods, printed goods and bleached goods was generally quiet. Business in tire fabrics has shown some improvement and the mills are fairly well sold ahead. Duck continued quiet, with prices showing considerable irregularity.

Business in print cloths was considerably better toward the latter part of the week. Contracts were placed for October-November delivery. A number in the trade described the day as more quiet than other days of the current week. Because of such irregular reports the conclusion was that the movement of cotton cloths was fair. A few constructions came out at reductions but most styles held unchanged in price.

There were sales of 64x60s print cloth at 8¾ cents for spots and later. Spots and October-November 60x48s sold first hand at 7½ cents. Bids were out on 68x72s at 9¾ cents with mills holding for 10 cents and second hands letting go of a few at 9⅞ cents. A fair quantity of 7.15-yard sold at 6¾ cents and 27-inch 64x60s at 6⅜ cents with rumors of ⅛ cent less having been done. Buyers tried for 80 squares at 11¼ cents and found 11½ cents the general holding level. A few 64x56s brought 8½ cents and 8.20-yard 5¾ cents.

Trade in sheeting was generally small. Buyers took 36-inch 3-yard at 12¾ cents with some offered early in the day at 12⅝ cents. Sales of 36-inch 3.25-yard second hand were at 11⅞ cents and first hand 36-inch 3.50- yard 12⅝ cents. A few 37-inch 4-yard brought 9½ cents; 36-inch 5.50-yard second hand 7½ cents for spots; 40-inch 2.85-yard spots 13 cents, and October the same; 40-inch 2.50 yard spots 15 cents; 44x40s 6.15-yard 6⅞ cents; 36-inch 4.70-yard 9 cents; 40-inch 3.60-yard 11¾ cents.

Inquiry for 90x60 carded broadcloth was better than for some time past, although it was not indicated that all of it materialized into business. Apparently those responsible for the inquiry had set their minds on a price at around 10½ cents. On this basis, some mills reported they could have sold a considerable quantity, but it so happened that cotton stiffened and there was even less inclination to meet this price, on the part of first hands, than they had previously displayed. Some reported that they had obtained part of these goods in second hands; although cotton was off again sharply yesterday, the impression at the close was that second hand offerings of both the 90x60s and 100x60s were less plentiful than formerly. Quotations on 90x60s reported in first hands were 10¾ to 11 cents on 100x60s 11½ to three-quarters. One or two centers told of having turned down bids of 9⅞ cents on feeler-motion 80x60s, asking even money; the reports were that some had been obtained at the lower price. Mills were holding 112x60 carded at 14 cents, with some sales reported in second hands at three-quarters.

Combed goods generally continued limited. Sales of spot 40-inch, 72x69, 9.50 yard combed lawn were reported at 11 cents; some 35-inch, 96x100, 14-16 two-end Cantons were reported sold at 24½ cents; for some spots of 39-inch, 88x140, 5.10 yard combed sateen, 19 cents was paid.

For 30-inch, 88x80, 11.35 combed lawn, 9¾ cents quoted, spot and contract.

Estimates of the weekly business in the Fall River print clot hmarket vary, with the general belief the volume will not exceed 10,000 pieces. Without question this period has been the quietest in the history of the market and the entire week has been devoi dof interest. The bulk of the light sales was in 36-inch low count numbers, and when the poundage is considered the business of hte week was unusually light.

Sales of cotton duck have held to small size and not many of them are reported being placed. No quantity of second hand offerings has come out during the last few days. Mills have not changed quotations which are considered as nominal.

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s	7
Print cloths, 28-in., 64x60s	6¾
Print cloths, 27-in., 64x60s	6½
Gray g'ds, 38½-in., 64x64s	9
Gray goods, 39-in., 68x72s	10¼
Gray goods, 39-in., 80x80s	12¼
Brown sheetings, 3-yard	13½
Brown sheetings, 4-yd., 56x60s	11½
Brown sheetings, stand.	14¾
Tickings, 8-oz.	24 a24½
Denims	19
Staple ginghams, 27-in.	10
Kid finished cambrics	8½a 9½
Dress ginghams	15½a16½
Standard prints	8¾

WANTED

Textile chemist familiar with dyestuffs, having some mill experience; apply by letter, giving details as to schooling, experience, salary expected, etc.

BOX 591, CHARLOTTE, N. C.

The Yarn Market

Philadelphia, Pa.—Somewhat better conditions in the yran trade were apparent near the end of the week. Buying interest appeared considerably better, although actual sales were generally limited to small lots wanted for early delivery. The markets were steadier, however, than during the previous week and the volume of day to day trading was larger. There were reports of a few large orders for future delivery, but these were exceptions.

Buyers continued their efforts to get lower prices and the majority of their offers were lower than spinners would accept. Spinners' prices were generally firm throughout the week and the prices published in this market were regarded by spinners as low. Both spinners and selling agencies feel that the potential demand for yarn is large as consumers have continually deferred purchasing for a long period. Most yarn consumers have covered only their actual needs for many weeks and it is felt in the market that they will have to come in for larger supplies before much longer. They are still trying to wait out for the market for lower prices.

The September decline in cotton values shows signs of having run its course and yarn dealers say sentiment in the cotton market is agai ntaking on a bullish aspect, while many of the spinners report that the cotton crop outlook in their districts has shown no improvement since the last Government forecast was issued. Carded weaving yarns are quoted by most of the spinners on the basis of 39 to 40 cents for 20s-2 carded warps, ordinary quality, which is said by dealers to represent only slightly more than replacement cost with cotton priced as at present.

Combed yarn distributors here had another exceptionally dull month, following the quiet period of July and August. Ordinarily, out of, say, 1,000,000 pounds of yarn inquired for, orders ought to materialize for 600,000 to 700,000 pounds, but the experience of local combed yarn men has been that only about one-third of the inquiry can be converted into orders. Sellers are convinced that the potential demand is large, but when it may develop into business is said to be anybody's guess. Higher cotton is looked for, but stabilization for a time at some definite level is claimed to be what is most needed to benefit the yarn industry.

Southern Two-Ply Chain Warps.

8s	34½
10s	35½
12s	36½
16s	39
20s	40
24s	44
26s	45
30s	49
40s	56
40s ex.	58
50s	70

Southern Two-ply Skeins.

8s	35
10s	36
12s	36½
14s	38
16s	40
20s	42
24s	44
30s	46
32s	37
36s	54
40s	56
40s ex.	58
50s	70
60s	78

Part Waste Insulating Yarn.

6s, 1-ply		30
8s, 2, 3 and 4-ply		31
10s, 1-ply and 3-ply		33
12s, 2-ply		34
16s, 2-ply		36
20s, 2-ply		38
26s, 2-ply		41
30s, 2-ply		42
Tinged Carpet	3 and 4-ply	33
White Carpet	3 and 4-ply	34

Duck Yarns, 3, 4 and 5-ply

8s	35
10s	36
12s	38
16s	40
20s	42

Southern Single Chain Warps.

10s	35
12s	36
14s	37
16s	38
20s	39
24s	41
26s	42
30s	45
40s	54

Southern Single Skeins.

6s	35
8s	36
10s	37
12s	37½
14s	38
16s	38½
20s	39
22s	40
24s	42
26s	43
30s	44

Southern Frame Cones

8s	36
10s	36½
12s	37½
14s	38½
18s	39
20s	40
22s	41
24s	42
26s	43
28s	44
30s	45
30s	45
40s	56

Southern Combed Peeler Skeins, Etc.—Two-ply.

16s	51
20s	53
30s	61
36s	66
40s	72
50s	77
60s	85
70s	95
80s	1.05

Southern Combed Peeler Cones.

10s	44
12s	45
14s	46
18s	47
20s	48
22s	49
24s	52
26s	54
28s	55
32s	58
34s	59
36s	62
38s	64
40s	65
50s	76
60s	85
70s	95

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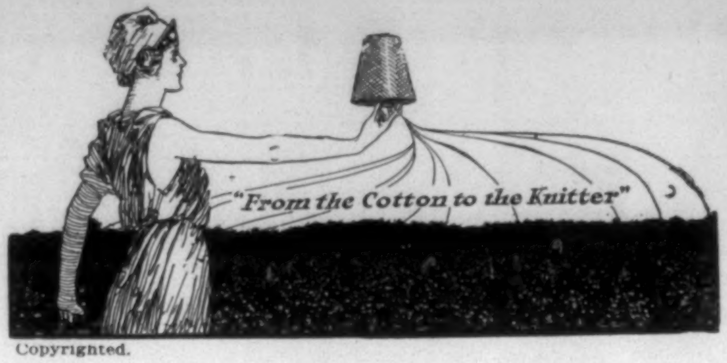
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Wanted

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Missing

My wife and daughter have been missing since Sept. 10th and will appreciate any information leading to their whereabouts. Both are slender and have bobbed hair. Work as frame hands. Address P. B. Bice, care Mrs. W. C. Allen, Davidson, N. C.

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